DOCUMENT RESUME

ED 408 903	HE 030 222
AUTHOR	Altbach, Philip G., Ed.
TITLE	The International Academic Profession: Portraits of Fourteen Countries. Special Report.
INSTITUTION	Carnegie Foundation for the Advancement of Teaching, Princeton, NJ.
REPORT NO	ISBN-0-931050-53-7
PUB DATE	96
NOTE	761p.
AVAILABLE FROM	Jossey-Bass Inc., Publishers, 350 Sansome Street, Fifth Floor, San Francisco, CA 94104; telephone: 888-378-2537; fax: 800-605-2665 ($20).
PUB TYPE	Books (010) -- Reports - Research (143) -- Tests/Questionnaires (160)
EDRS PRICE	EDRS Price MF4 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	College Environment; *College Faculty; Comparative Analysis; Comparative Education; Compensation (Remuneration); Educational Resources; Faculty College Relationship; Faculty Development; Faculty Promotion; Faculty Publishing; Faculty Workload; *Foreign Countries; Higher Education; International Education; Participative Decision Making; Questionnaires; Teacher Administrator Relationship

ABSTRACT

This analysis of the academic profession in 14 nations was based on responses received from an international survey of nearly 20,000 college and university faculty members from Australia, Brazil, Chile, England, West Germany, Hong Kong, Israel, Japan, Korea, Mexico, Netherlands, Russia, Sweden, and the United States. Data were analyzed and portraits, including more than 300 tables and charts, were prepared by researchers and scholars in the respective countries. After a foreword by Ernest L. Boyer, chapters include: "The Academic Profession in International Perspective" (Philip G. Altbach and Lionel S. Lewis); "The Australian Academic Profession" (Barry A. Sheehan and Anthony R. Welch); "The Academic Profession in Korea" (Sungho H. Lee); "The Academic Profession in Japan" (Akira Arimoto); "The Future of the Hong Kong Academic Profession" (Gerard A. Postiglione); "The Academic Profession in Brazil" (Simon Schwartzman and Elizabeth Balbachevsky); "The Chilean Academic Profession: Six Policy Issues" (Ernesto Schiefelbein); "The Mexican Academic Profession" (Manuel Gil Anton); "The American Academic Profession" (J. Eugene Haas); "The Academic Profession in England on the Eve of Structural Reform" (Oliver Fulton); "The Academic Profession in Germany (Jurgen Enders and Ulrich Teichler); "The Dutch Professoriate" (Peter A. Geurts and others); "The Academic Profession in Sweden" (Goran Blomqvist, Hans Jalling, and Karsten Lundeqvist); "The Academic Profession in Russia" (Brian L. Levin-Stankevich and Alexander Savelyev); and "The Academic Profession in Israel: Continuity and Transformation" (Michael Chen and others). Appendices include: "The International Survey of the Academic Profession, 1991-1993: Methodological Notes" (Mary Jean Whitelaw); a list of members of the research team; and a copy of the survey instrument. (Contains extensive reference notes.) (CH)

ED 408 903

A SPECIAL REPORT

The International Academic Profession

PORTRAITS OF FOURTEEN COUNTRIES

EDITED BY

PHILIP G. ALTBACH

WITH A FOREWORD BY

ERNEST L. BOYER

THE CARNEGIE FOUNDATION
FOR THE ADVANCEMENT OF TEACHING

HE030 222

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL
IN OTHER THAN PAPER COPY
HAS BEEN GRANTED BY
The Carnegie Foundation
for the Advancement of
Teaching
TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

BEST COPY AVAILABLE

THE INTERNATIONAL ACADEMIC PROFESSION

A SPECIAL REPORT

The International Academic Profession

PORTRAITS OF FOURTEEN COUNTRIES

EDITED BY

PHILIP G. ALTBACH

WITH A FOREWORD BY

ERNEST L. BOYER

THE CARNEGIE FOUNDATION
FOR THE ADVANCEMENT OF TEACHING

5 IVY LANE, PRINCETON, NEW JERSEY 08540

HE030 222

Copyright © 1996

The Carnegie Foundation
for the Advancement of Teaching

All rights reserved. No part of this book may be reproduced in any form—except for brief quotations not to exceed one thousand words in a review or professional work—without permission in writing from the publisher.

This report is published as part of the effort by The Carnegie Foundation for the Advancement of Teaching to explore significant issues in education. The views expressed should not necessarily be ascribed to individual members of the Board of Trustees of The Carnegie Foundation.

Library of Congress Cataloging-in-Publication Data

The international academic profession : portraits of fourteen
countries / edited by Philip G. Altbach ; with a foreword by Ernest
L. Boyer.
p. cm.—(A special report)
Includes bibliographical references (p.) and index.
ISBN 0-931050-53-7 (alk. paper)
1. College teachers—Attitudes—Cross-cultural studies.
2. College teaching—Cross-cultural studies. 3. Educational
surveys. I. Altbach, Philip G. II. Carnegie Foundation for the
Advancement of Teaching. III. Series: Special report (Carnegie
Foundation for the Advancement of Teaching)
LB1778.I54 1996
378.12—dc20 96-42993

Copies are available from

Jossey-Bass Inc., Publishers
350 Sansome Street, Fifth Floor
San Francisco, California 94104

Telephone (888) 378-2537 Fax (800) 605-2665

Visit the Carnegie Foundation web site:
http://www.carnegiefoundation.org

THIS CARNEGIE FOUNDATION REPORT was developed and written during the presidential tenure of Dr. Ernest L. Boyer, who died on December 8, 1995. It is published in grateful memory of his vision, his leadership, and his service.

CONTENTS

Acknowledgments xi

Foreword by Ernest L. Boyer xv

Introduction xvii

THE ACADEMIC PROFESSION IN INTERNATIONAL PERSPECTIVE
Philip G. Altbach and Lionel S. Lewis 3

AUSTRALIA

THE AUSTRALIAN ACADEMIC PROFESSION
Barry A. Sheehan and Anthony R. Welch 51

ASIA

THE ACADEMIC PROFESSION IN KOREA
Sungho H. Lee 97

THE ACADEMIC PROFESSION IN JAPAN
Akira Arimoto 149

THE FUTURE OF THE HONG KONG ACADEMIC PROFESSION
Gerard A. Postiglione 191

LATIN AMERICA

THE ACADEMIC PROFESSION IN BRAZIL
Simon Schwartzman and Elizabeth Balbachevsky 231

THE CHILEAN ACADEMIC PROFESSION: SIX POLICY ISSUES
Ernesto Schiefelbein 281

THE MEXICAN ACADEMIC PROFESSION
Manuel Gil Antón 307

THE UNITED STATES

THE AMERICAN ACADEMIC PROFESSION
J. Eugene Haas 343

EUROPE

THE ACADEMIC PROFESSION IN ENGLAND ON THE EVE OF STRUCTURAL REFORM
Oliver Fulton 391

THE ACADEMIC PROFESSION IN GERMANY
Jürgen Enders and Ulrich Teichler 439

THE DUTCH PROFESSORIATE
Peter A. Geurts, Peter A. M. Maassen, and Frans A. van Vught 493

THE ACADEMIC PROFESSION IN SWEDEN
Göran Blomqvist, Hans Jalling, and Karsten Lundeqvist 529

THE ACADEMIC PROFESSION IN RUSSIA
Brian L. Levin-Stankevich and Alexander Savelyev 567

ISRAEL

THE ACADEMIC PROFESSION IN ISRAEL: CONTINUITY AND TRANSFORMATION
Michael Chen, Esther E. Gottlieb, and Ruth Yakir 617

Appendix A THE INTERNATIONAL SURVEY OF THE ACADEMIC PROFESSION, 1991–1993: METHODOLOGICAL NOTES
Mary Jean Whitelaw 669

Appendix B MEMBERS OF THE RESEARCH TEAM 679

Appendix C THE INTERNATIONAL SURVEY OF THE ACADEMIC PROFESSION
(Survey Instrument, English Language) 683

Notes 709

Contributors 743

Index 749

ACKNOWLEDGMENTS

This book is the summation of a highly complex and collaborative research enterprise, the first international survey of the academic profession ever undertaken. The project was sponsored by The Carnegie Foundation for the Advancement of Teaching, and it stems most directly from the commitment of the Foundation's president, Ernest L. Boyer, to whom we dedicate this volume. His vision shaped this project from the beginning, and his intellectual involvement continued throughout the enterprise.

A project as large and complicated as this international survey depends on the work of many colleagues and requires a significant degree of dedication from all involved with it. Central to the effort were the work and commitment of the research directors in each of the countries involved. They also significantly shaped the research, as they were involved in the design of the questionnaire, helped to devise the research procedures, and of course carried out the research. This study is truly collaborative, then, and its success depended on the wisdom of the research directors and their colleagues. The final stage of our efforts, the preparation of this volume, also involved the research directors, and I am indebted to them for their chapters and for their willingness to work with me on revisions and clarifications.

The staff of The Carnegie Foundation for the Advancement of Teaching provided essential guidance throughout the project. They did much of the work involved with the design of the research and coordinated the collection, collation, and preparation of data. Mary Huber was involved in managing the project as well as helping to shape its direction, both in the early period and later in analyzing and interpreting data. Eugene Haas provided key leadership during the early phases of this project. He was instrumental in formulating the research design and the strategies for implementing data collection, and then worked on the tabulation of the data. He assisted several of the research directors in designing and administering their surveys. Mary Jean Whitelaw was also central to the research collection process. She managed the highly complex data set during the latter phases of the project and also contributed to the analysis of the data. Her technical editing of the final manuscript greatly improved this volume.

Others at the Foundation also contributed significantly to the success of the project. Lois Harwood was involved in designing the survey instrument, administering the study, and planning and coordinating the meetings of the international research team. She redesigned and recreated the figures in each chapter, greatly improving the visual display of that data, and was an invaluable technical editor of the final manuscript. Craig Wacker was instrumental in assisting with data management and analysis, as well as the preparation of translated material. Dale Coye, Jacob Greenberg, Shannon Lucas, and Sarah White Brown were also helpful at different phases of the research. Jeanine Natriello organized and coordinated both of our international conferences. Edith Hoshino edited the entire manuscript. Carolyn Lieberg also edited the manuscript, and Jan Hempel oversaw the editing, design, and publication of this book, with invaluable assistance in the final months from Heidi Sheehan.

The translation and back-translation of the questionnaire into eight languages (Dutch, Portuguese, German, Hebrew, Spanish, Japanese, Korean, and Russian) required a good deal of work and coordination. We are indebted to Hyaeweol Choi, Junko Kanemura, Brian Levin-Stankevich, John C. G. Boot, Glaucio A. D. Soares, Flora Brodsky, Daniel Levy, Yaacov Iram, Maresi Nerad, Soong-Hee Han, Marcia Arieira, Erik J. Friis, Roxana Reichman, Juan Valentin, and Linda von Hoene for their efforts toward translation of questionnaires and faculty comments.

I also benefited from the editorial help of Eng Thye Jason Tan and Nandini Chowdhury at the State University of New York at Buffalo. James Forest provided editorial and other assistance at Boston College. The Comparative Education Center at SUNY-Buffalo and the Center for International Higher Education at Boston College contributed significantly to this study. The Hoover Institution at Stanford University provided me with a period of time to write.

The Andrew W. Mellon Foundation provided crucial financial support for the study.

In most of the countries involved with this study, both funding and logistical support were provided by a variety of local agencies. We are indebted to the following organizations, among others, for their support: Australia—substantial financial assistance was provided by the Commonwealth of Australia Department of Employment, Education and Training, through its Evaluations and Investigations Program; Brazil—Brazilian National Council for Scientific and Technological Development (CNPq); Chile—the UNESCO Regional Office for Education in Latin America and the Caribbean (OREALC) and the Corporación de Promoción Universitaria (CPU); Germany—Federal Ministry of Education for funding the survey and a variety of organizations for supporting it; Israel—State Teachers College—Seminar Hakibbutzim; and the Netherlands—Dutch Ministry of Education, Culture and Science.

This book was based on international collaboration from beginning to end. It could not have been completed without the support of friends and colleagues in fourteen countries.

Philip G. Altbach
Chestnut Hill, Massachusetts

FOREWORD

by Ernest L. Boyer

THIS REPORT is an important milestone in international higher education. It presents the results of the first international survey of the academic profession ever undertaken, one of the very few efforts to understand the common elements of academia worldwide. The data analyzed here show that there is indeed an international academic profession with common perspectives and concerns, common problems and challenges. While universities are embedded in the national realities of their countries, they are also international institutions, stemming from a common historical tradition and, in virtually all countries, facing similar challenges.

The International Survey of the Academic Profession was conceived by The Carnegie Foundation for the Advancement of Teaching in 1990 as the first of a series of continuing international initiatives at the Foundation. We are convinced that an international perspective is central to an understanding of key problems in education, and that we can learn much from the experiences and insights of other countries. The Foundation is continuing its international work in several directions. A recently completed international survey of the views of schoolchildren, teachers, and parents in twelve countries offers an international perspective on schooling. We have also been engaged for more than four years in a unique collaborative arrangement with the Center for Educational Policy Research at the State Education Commission of China. This exchange has resulted in a number of policy-oriented seminars in both countries and, recently, several linkages between U.S. higher education institutions and counterparts in China.

This survey was a collaborative enterprise from start to finish. While the initiative for the project came from The Carnegie Foundation and the questionnaire was based on a survey of American academics, the project was designed by a group comprised of an international scholar from each of the countries involved. The questionnaire was modified to meet international needs and the requirements of the research design as formulated by this international group of colleagues.

The results of the research, reported in detail in this book and in a wider international framework in our recent publication *The Academic Profession: An International Perspective,* are both fascinating and quite significant. Because the academic profession is at the heart of the academic enterprise, the views of scholars and scientists must be carefully considered. It is especially important to understand the views of the professoriate now because academe worldwide faces unprecedented challenges. The professoriate must be intimately involved in the changes and reforms taking place in many countries.

INTRODUCTION

THIS BOOK is based on a pioneering international survey of the academic profession. Our intention is to provide an international analysis of the professoriate of fourteen countries. While this is a snapshot taken in 1992 and 1993, the study was designed to provide information on topics and trends that have lasting implications for the academic profession. The survey questionnaire, which included more than two hundred items, required about an hour to complete. We believe our survey captures opinions and information about many of the issues and trends most crucial to higher education: student access and excellence; professional activities including teaching, research, and service; basic demographic information concerning the professoriate; working conditions; institutional governance issues; the role of higher education in society; and international connections. Our hope is that this report will advance the international discussion on scholarly and institutional issues.

The countries initially included in this study were Australia, Brazil, Chile, Egypt, England, [West] Germany, Hong Kong, Israel, Japan, Korea, Mexico, the Netherlands, Russia, Sweden, and the United States. Unfortunately, complications with methodology and survey administration eventually precluded Egypt's inclusion in this report. These countries reflect considerable diversity, although none has a very low per capita income, and all have well-developed systems of higher education. The choice of countries reflected a variety of concerns beyond geographical diversity. Selection also depended upon interest and support within each country by competent professionals willing to work with the research group, and upon the ability within each of the participating countries to provide appropriate logistical research and in most cases financial support. Australia, Hong Kong, and Sweden joined the research project after it was under way.

The data for this volume were collected through the administration of an international survey questionnaire, and survey research brings with it both advantages and disadvantages. This study permits us to compare and contrast the views of the professoriate in different countries according to responses to common questions. A survey also allows us to analyze the data so that relationships can be seen. A survey questionnaire, however, necessarily limits many of the important historical and contextual elements so central to understanding. For this reason, the essays in this book focus not only on what the survey revealed about the academic profession, but they also provide some of the contextual factors relating to each of the countries. It bridges the gap between a basically quantitative survey and a more qualitative understanding of the academic profession.

The International Academic Profession: Portraits of Fourteen Countries is the second major publication stemming from this study of The Carnegie Foundation for the Advancement of Teaching. The first, *The Academic Profession: An International Perspective,* viewed the academic profession in fourteen countries through the prism of several general themes.[1] This book, on the other hand, seeks to provide a more detailed analysis of each of those countries. We asked each of the research directors or research teams, all of whom were integral to the development of the study, to prepare essays on the academic profession in their country, stressing the issues that are most relevant there and providing some background and contextual material as well. We provided each author with a suggested chapter outline but allowed ample flexibility to account for different circumstances. We also include, in this volume, a comparative introductory essay that deals with many of the key themes in our study and that, to some extent, overlaps with our first book.

This project is also stimulating continuing research and publication worldwide. Several of the research teams are cooperating on regional or national publications growing out of this work. The European research teams, for example, are undertaking a reanalysis of the data and will publish a book providing a more detailed discussion of the European academic profession. Books in Japanese and Korean analyzing the Carnegie Study have been published. Researchers uninvolved in the Carnegie project are also replicating the Foundation's questionnaire to use in their own surveys.

---

[1] Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994).

Organizing a research project of this magnitude was a complex and time-consuming task, a job made all the more difficult by our commitment to ensure that the work was completely collaborative. The research directors in each country were involved in the design of the questionnaire, the development of a research strategy, the collection of data in each country, and the analysis of the material. Two meetings with the research team were held, and constant communication among the participants was maintained.

The project proceeded in several key phases. First, the questionnaire was based on the one used in the United States by The Carnegie Foundation in several earlier studies, but modified for international use. Even with these changes, however, research directors in several countries chose to delete some questions that they felt to be inappropriate. As a result, data are not available from some countries for certain questions, although there is a substantial common core of questions that were asked in all. The research directors then translated the questionnaire into eight languages (Dutch, German, Hebrew, Japanese, Korean, Portuguese, Russian, and Spanish) and followed up with a process of back-translation to ensure that the questions remained consistent with the original English version. The English-language version was administered in Australia, the United States, Hong Kong, England, and Sweden.

The second major phase in the development of the research methodology was the selection of a common strategy for obtaining an appropriate population of academics in the fourteen countries. It was decided that approximately one thousand completed questionnaires should be obtained in each country. In almost all cases, this number was achieved; the total number of respondents was 19,472. A research design in each country was devised to ensure reliable sampling of a cross section of academics. It was decided that the study would be limited to faculty members in postsecondary institutions offering an equivalent of the American bachelor's degree and above, thus eliminating, for example, community and junior colleges in the United States and Japan, and the polytechnics in England (although, since our study was completed, the polytechnics have been upgraded to university status). The *Fachhochschulen* in Germany are included. (In some countries—the United States and the Netherlands, for example—additional surveys were completed by academics at other types of institutions not included in our sample. The results are not included in this report.) In some countries, it was also decided to "oversample" academic institutions with a strong research orientation so that we could pay special attention to the "research cadre" of academic staff. Some of the chapters in this book focus primarily on this key segment of the profession, although they describe the total population of academics as well. (The methodological appendix at the end of this book provides further discussion of the general methods and research design.)

Once the data were collected, they were prepared for analysis by the staff of The Carnegie Foundation. The process of coding and preparing the data for analysis was an extraordinarily complicated task since there were modifications made to the questions used by some of the countries, and efforts had to be made to ensure comparability. Data preparation was reviewed by the research team in each country. Subsequently, each research team received a copy of the data from all countries. The contributors to this book base their analysis on that data.

Analysis of the comparative material was done by The Carnegie Foundation, and a brief summary of some of that work is reported in the first chapter of this book, as well as in *The Academic Profession: An International Perspective.* Analysis of the data from each country was carried out by the research team in that country, and some of that work is reported in the case studies of this book. Each country had available to it all of the comparative data, and comparative comments are included in many of the chapters in this book.

Not only did this study present the challenges of coordinating the work of research groups in different countries and overcoming differences in approaches to research, but in some countries, fast-changing circumstances at the time of the survey introduced exceptional complications. While these factors no doubt affected response rates among the countries, as well as attitudes about specific questions, we believe they make this study exceptionally significant and interesting.

The political and economic turmoil in Russia, for example, in the immediate aftermath of the fall of the communist regime had a profound impact on higher education and on the academic profession there. It is not at all surprising that the Russian response rate to our survey was low, and interpretation of the Russian data must be placed in that context. But this was an exciting moment to survey Russian professors and create a benchmark for future studies. In Israel, at the time that the questionnaires were distributed, a nationwide strike of professors was taking place—a strike called to protest low salaries and deteriorating working conditions. The survey provides a timely portrait of Israeli academia and an interesting foundation for later studies. In England, the relatively recent dramatic changes imposed on the higher education system by the Thatcher government no doubt affected the views of the academics responding to our questionnaire. Higher education in Australia, too, has undergone significant changes in its recent history, including the amalgamation of many institutions and the abolition of the binary system. And in Hong Kong, the anticipation of the 1997 reversion to China created especially interesting survey conditions.

Despite local challenges, response rates, it should be noted, fell within a range considered acceptable for questionnaire surveys. Brazil had the highest rate of response, with 97.2 percent, while Russia had the lowest, with 14.5 percent. Most of the countries had response rates that ranged between 33 and 50 percent. Further, in the countries for which the information is available, a comparison was made between the demographic characteristics of our respondents and the academic profession in the country; and in each case, our respondents matched the general population of academics in terms of such variables as gender, discipline, and rank.

We can certainly see, in the responses to our questionnaire, significant variations in the characteristics of the academic profession across the countries included in our survey. The large proportion of teaching staff employed only part-time in Latin America, for example, affects the responses there to certain questions. In several European countries, some respondents occupy positions in the academic hierarchy that do not permit promotion through the ranks—"terminal" positions—and this status influences responses to particular questions. We see some variations in the balance of perspectives among academics across the various *disciplines*, as well, including variations pertaining to gender and age. (It should be noted, too, that in the portraits of the various disciplines we also find *similar* characteristics, perhaps more often than differences.)

While the individual chapters focus to some extent on specific national circumstances and how they affect the views of the academic profession in specific countries, a survey study of this kind may well mask some important national variations, or on the other hand may overemphasize some kinds of differences. This type of study cannot provide a fine-grained analysis of a highly complex topic—the international academic profession—but it can illuminate broad patterns.

We see this study as a benchmark. It is the first survey on this topic, and it provides an overview of the academic profession at the end of the twentieth century, a time when the professoriate everywhere is under unprecedented strain. The "knowledge industries," of which universities are a central part, are increasingly central to postindustrial societies, giving the academic profession a public importance now and in the future. Our effort to understand the nature of the profession has yielded impressive data, and it is our hope that this research will strengthen and deepen our understanding of the subject and will stimulate further consideration of the academic enterprise.

THE INTERNATIONAL ACADEMIC PROFESSION

Philip G. Altbach and Lionel S. Lewis

THE ACADEMIC PROFESSION IN INTERNATIONAL PERSPECTIVE

FOR NEARLY THREE DECADES, The Carnegie Foundation for the Advancement of Teaching has been surveying the academic profession in the United States, analyzing the attitudes, values, and professional orientations of the professoriate, as well as chronicling its changing demographic profile. Since the first survey in 1969, the number of U.S. faculty has increased greatly and the faculty has become more diverse, a reflection of changing social conditions apparent in the academy not only in the United States but in other countries as well. Recognizing both the common challenges facing the academy worldwide and the increasing international connections of the professoriate, the Foundation coordinated the first international study of the academic profession.

The work of higher learning has always crossed national boundaries. In fact, since the establishment of the Western university model in the medieval period, there has been an international community of scholars, with professors frequently teaching abroad, usually in Latin, the international language of academe in the medieval period. (In this century, English has become the international language of research and scholarship, with ramifications that will be touched on later.) In the modern period, with the evolution of the international academic labor market and scientific community, along with more efficient travel and communications, the international community of scholars and scientists has become much stronger and more professionally connected.

With the advent of the research university in the late nineteenth century, the internationalism of scientific study in particular expanded through ever-increasing collaborative efforts around the globe. International intellectual exchanges have also occurred with increasing regularity in the social sciences and humanities. Like the fine arts, scholarship travels well, and more academics than ever before now benefit from exchanges with colleagues in countries far from home. These relationships have undoubtedly contributed richly to the work of the academy and have expanded the world's reservoir of knowledge.

In the International Survey of the Academic Profession, 1991–1993, academics in fourteen countries were surveyed in order to gather information on the demographic facts of the profession, on attitudes toward teaching and learning, on the governance of academic institutions, on morale, and on the involvement of scholars and scientists at the national and international levels. In addition, information was gathered on how academics spend their time, and about their participation in research. As a result of this survey, we now for the first time have comparable data about the attitudes and activities of the academic profession in fourteen countries. This study can provide—and in fact already is providing—the basis for similar research in other countries as well.

The fourteen countries included are all middle-income or wealthy, and all have rather well-developed, well-supported higher education systems. The nations participating in the survey are Australia; the Asian countries of South Korea, Japan, and Hong Kong; the Latin American countries of Brazil, Chile, and Mexico; the United States; the European countries of England, Germany,[1] the Netherlands, Sweden, and Russia; and Israel in the Middle East.

The survey was carried out at a particularly important time for the academic profession. For a number of years, the professoriate has been undergoing change and has been under strain almost everywhere. Fiscal problems for higher education are now evident in all of these fourteen countries, with the crises especially severe in Russia, Israel, and England. In most of the nations, the somewhat unprecedented phenomenon of increasing enrollments has been allowed to supersede allocated resources. Reassessment by policymakers and opinion leaders of the role of the academic profession in teaching and research is also widespread. At the same time, professors in a number of countries are being asked to be more entrepreneurial—for example, in bringing research grants and contracts to their institutions. The insulated world of academe is clearly undergoing significant change, and this presents unprecedented challenges for the academic profession. There is little doubt that insight concerning how academics in these fourteen countries are coping with the strain of fiscal difficulties and other factors has broad policy implications.

The relevance, then, of this survey is considerable. It is now possible to study in greater depth the similarities and contrasts among academics in different countries, to examine how the organization of academic systems, specific crises, or distinctive emphases may affect the attitudes and the roles of the academic profession. As indicated, colleges and universities throughout the world have common historical roots—academic institutions in Japan, Germany, the United States, Brazil, and, indeed, all other countries look to a common European heritage. Yet each university operates in a particular country as well, and the realities of the academic profession are very much affected by national policies and even by local situations.

It cannot be overemphasized that the greatest value of this study is that it enables us to examine both the national and the international aspects of the academic profession. The survey explores just how scholars see international links and what use they make of research from other countries. Looked at as a whole, these chapters reveal that, while the separate countries have sharply contrasting higher education histories and governance arrangements, a community of interest is emerging. The study indicates areas that academics around the world have in common.

This study is also unique in that it was designed and implemented by researchers in the participating countries. While the questionnaire is loosely based on The Carnegie Foundation's original format, it has been modified to be relevant to the international context and to focus on the topics that were identified as particularly salient by the members of the research group. The very process of designing the questionnaire was itself a revealing exercise, as differences in priorities of the professoriate, and even in the meaning of basic concepts, were discussed, debated, and ultimately resolved. The questionnaire was carefully translated into the languages of the countries involved (Dutch, German, Hebrew, Japanese, Korean, Portuguese, Russian, and Spanish, with the English version used in Australia, England, Hong Kong, Sweden, and the United States).

A common methodology was used to select institutions and individuals to ensure a random sample from each country.[2] The number of respondents ranged from more than thirty-five hundred to somewhat fewer than one thousand. Response rates varied among the countries, but fell within what is considered appropriate for surveys of this kind.[3] Altogether, the total sample was close to twenty thousand. The twelve-page questionnaire included more than two hundred questions, some of which had country-specific variations to reflect national circumstances.[4] One can expect such variations in any large-scale international survey, especially when the survey explores a completely new subject. We are convinced, however, that the results are reliable and valid, and indeed various statistical tests conducted support this belief. This chapter is based on an analysis of the basic descriptive tables designed to reflect the international responses to the questionnaire. Our goal is to present a profile of the professoriate from an international perspective and, in the process, to define priorities that might focus the discourse of scholars.

THE IMPORTANCE OF CONTEXT

While the professoriate is part of an increasingly international profession, and universities worldwide stem from a common European heritage, there are important national variations. Moreover, as Burton Clark has pointed out, academics are also divided by discipline and field, and these identities are powerful in shaping attitudes and values.[5] This chapter, by focusing on broad themes and comparisons, necessarily ignores many specific details pertaining to strictly national contexts, as well as other particular variations within the academic profession, such as department of teaching appointment. In the chapters that follow, contributing authors focus on those circumstances in each country affecting the nature of the overall findings of this survey.

In some of the countries, dramatic changes in the structure and function of the higher education system have affected the nature of academic work. In others, economic problems have had a profound impact on the profession. While it is not possible to quantify how these challenges have shaped survey responses, it is clear that respondents have been affected by a decade largely unfavorable to the academic profession in virtually all of the countries included here. The following discussion focuses on some of the major circumstances that have affected higher education systems and the scholars and scientists working in them.

One nearly common denominator of circumstance internationally has been fiscal constraint, often as a corollary of greatly expanded enrollments. Of all the survey countries, only Hong Kong enjoyed generally favorable economic circumstances in higher education during the past decade. All of the rest have had problems ranging from modest to severe. The Asian countries have been least affected by economic crisis, although Japan's recession has had a modest impact on academe. Western Europe has also been spared significant cuts, despite economic recession in Germany, Sweden, and elsewhere. Even in these countries, however, governmental policy has increased enrollments without adding necessary resources. While the Latin American countries in the survey have not experienced major cuts in funding for public higher education—indeed, there has even been some growth—enrollments have increased significantly, thereby having an overall negative effect on academic systems.

In Russia, the impact of economic crisis and enormous political and social change on the academics who responded to our questionnaire must have been significant, but it was impossible to gauge the effects. The response rate for Russia is quite low, perhaps one reflection of the unstable situation. The greatest difficulties have additionally been experienced by the English-speaking nations and Israel, where economic downturns have been accompanied by growing enrollments and fiscal difficulties for higher education. The impact in the United States has varied by state and region, with the Northeast and California suffering most. Israel experienced severe cuts in higher education funding, so much so that the professors engaged in a lengthy strike, shutting down academic institutions, which happened to take place during the administration of our questionnaire. In the end the professoriate won only modest gains.

England and Australia are among the most interesting cases, since economic downturns were accompanied by significant reforms in higher education policy. These reforms were bitterly opposed by the academic profession and have led to major changes within academe. Both countries sought to improve productivity in postsecondary education by combining separate sectors of the system and downgrading the elite sector of higher education. The changes were especially contentious in England, where the Thatcher government dismantled the binary system, the division between the traditional universities and the more vocationally oriented polytechnics. All were combined into one system in which the polytechnics and other postsecondary colleges became universities. Controversial performance measures were implemented. At the same time, enrollments were increased to provide greater access, and an effort was made to rank the institutions so that research funds could be awarded to those at the top of the rankings.

Another common denominator is the issue of tenure. While academics worldwide share many similarities in their employment arrangements, and secure appointments remain the rule, we found significant variations from country to country. We found, also, an increasing contrast between academics who have tenure, or at least are in a career-grade position, and those who have appointments that are nonpermanent. Nonpermanent appointments are common in Germany and are increasing in Sweden and the Netherlands, although the guarantees of academic job security in all three countries remain significantly stronger than in the United States. In perhaps one of the most drastic changes ever implemented in an established academic system, England, at the time of our survey, actually abolished the tenure system for new entrants to the profession, replacing it with renewable contracts. Korea has just instituted a formal tenure system, although most academics have had virtually lifetime employment. Japan, too, with its tradition of lifetime employment throughout society, has less mobility among its academics than is the case elsewhere.

It is fair to say that in most of the countries included in our survey major change was occurring in higher education at the time of the administration of the survey—and continues to this day. In every case, change was opposed by academics, sometimes vociferously and sometimes with resignation. Given the depth of the changes in some of these countries, we were somewhat surprised that our respondents were not less sanguine about their careers and about the future than we found them to be.

Other factors influencing the attitudes we report here, such as gender, age, rank, or full-time versus part-time status and departmental differences are noteworthy and extremely relevant as well. We found significant variations among these categories. The Latin American nations, for example, have significantly higher proportions of part-time faculty, as well as more women in their academic professions. An aging academic profession is evident in virtually all of the countries in the survey, and quite pronounced in a few. On some topics, the views of professors more oriented to research differ noticeably from those of professors who focus on teaching. Some demographic highlights are included in other chapters. Here we give a quick overview.

A Demographic Profile of the Profession

Our demographic profile of each country includes the factors of gender, age, and income—the most important indicators of the status of the academic profession—as well as data on academic training, typical career patterns, disciplinary backgrounds, and the current employment situation (full-time or part-time). Our brief overview compares the first three aspects, career patterns, and current employment arrangement.

We learned that the majority of academics are men—in Japan and Korea, nine out of ten academics are male, while in Brazil, at the other end of the spectrum, the figure is six out of ten. Males are more likely than females to hold the highest degrees in their disciplines and generally can be found in the higher academic ranks.

The academic profession is middle-aged—in most of the countries the large majority of professors are between forty and fifty years of age. There is considerable variation among countries, with Mexico having the youngest faculty and Israel, Russia, and Japan having the oldest. Very few in our sample are older than sixty-five years of age.

In all countries, most academics are employed full-time, although the

Table 1.1

HOW WOULD YOU RATE YOUR OWN ACADEMIC SALARY? (PERCENTAGES)

	EXCELLENT	GOOD	FAIR	POOR
Australia	3	31	44	22
Brazil	3	22	27	48
Chile	0	5	28	67
England	2	22	47	29
Germany	7	41	39	13
Hong Kong	25	46	23	5
Israel	1	6	30	64
Japan	1	10	45	44
Korea	1	12	36	51
Mexico	1	14	32	54
The Netherlands	9	50	31	10
Russia	1	7	16	76
Sweden	2	20	41	38
United States	9	37	35	20

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 87.

proportion of part-time professors seems to be increasing worldwide, and some countries, especially in Latin America, have traditionally had a proportionately large part-time faculty.

While variations in such things as exchange rates, cost of living, and inflation make it difficult to draw definitive conclusions about the data concerning the income of the academic profession from country to country, it seems that most academics are clearly in the middle class in their respective countries. Nevertheless, few scholars and scientists report their salaries to be good or excellent—indeed, there is considerable dissatisfaction about earnings and quite a bit of pessimism about future prospects for improvement in this area (table 1.1). In only two places, Hong Kong and the Netherlands, do more than half of the faculty rate their own salary as good or excellent. By contrast, in six countries, fewer than one-fifth of the faculty report this degree of satisfaction. In some countries, a number of faculty have turned to paid consulting projects and other extramural work to make ends meet. This is especially true in Russia, where more than 80 percent agree that an outside income is essential to augment their salary, no doubt reflecting the difficult economic situation in Russia today. In Japan, too, a number of faculty hold outside academic appointments, and there it is a common occurrence for professors in prestigious universities to also teach courses in less-renowned institutions.

Job mobility is not generally pronounced in academe—most academics have been employed at their institutions for fairly long periods of time. About half of the respondents have held an appointment at only one institution, and another quarter at two schools. Over one-fourth of the faculty in these countries (Australia, Brazil, and Israel), however, have worked at three or more institutions during the course of their careers. Those faculty who had had previous appointments spent from one to four years at institutions other than the one where they received our questionnaire (table 1.2). Older faculty, of course, have moved more times than have their younger colleagues. Mobility is lowest in Korea, Russia, and Japan. The principal explanations given by respondents for why they might leave their current institutions are related to income and resources for research. Less important are the school's academic reputation, their relationships with colleagues (which are generally good), and geographical location. There are a few instances of significant variation according to disciplinary field and among a few countries, but overall there is considerable similarity in the responses to these questions in the profession internationally.

Regardless of the level of satisfaction that academics feel vis-à-vis their salary, the majority receive the largest proportion of their incomes from their college or university, with consulting and teaching away from their home institutions comprising a relatively minor part of their earnings. There are some exceptions: in Brazil, for example, almost a third and in Mexico about 15 percent of full-time faculty hold paid, full-time

Table 1.2

AT HOW MANY DIFFERENT INSTITUTIONS OF HIGHER EDUCATION HAVE YOU EVER HELD A REGULAR ACADEMIC APPOINTMENT? (PERCENTAGES)

	ONE OR TWO	THREE OR MORE
Australia	68	32
Brazil	70	30
Chile	80	20
England	78	22
Germany	80	20
Hong Kong	75	25
Israel	74	26
Japan	89	11
Korea	95	5
Mexico	88	12
The Netherlands	88	12
Russia	91	9
Sweden	79	21
United States	75	25

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 74.

nonacademic positions. On the other hand, in Australia, Germany, Hong Kong, and England, fewer than 1 percent hold other paid, full-time nonacademic positions. The other extreme is evident in the small minority in the research cadre at the top of the profession that earns significant income from external sources and functions in the cosmopolitan atmosphere of international research.[6]

WORKING CONDITIONS

The conditions under which the professoriate works help to determine not only productivity but also morale. Not surprisingly, working conditions of the professoriate differ considerably from country to country, but we found that most academics have a positive sense about the most overarching and essential issue of intellectual atmosphere, including the courses they teach. The relationships professors have with administrators, with each other, and with students vary according to several factors, as do their attitudes about future prospects (table 1.3). Regarding a third level of working conditions—the physical facilities and such things as libraries and computers—we found a wide range of dissatisfaction. Overall, while being asked by academic administrators and policymakers to do more with fewer resources, faculty are being told that they should not expect to be rewarded—financially or otherwise—for meeting ever-increasing demands. Yet, while obviously frustrated by day-to-day working conditions and by poor prospects for increased rewards, when asked about their overall morale, most respond that it is relatively high. Many report finding intellectual pleasure in their work, and that this in large part sustains them.

Faculty express general dissatisfaction with their classrooms, laboratories, research equipment, libraries, and with the technologies available for teaching, although they are more satisfied with existing computer facilities. In almost all of these areas, the faculty of five countries—Hong Kong, the Netherlands, the United States, Sweden, and Germany—are generally less critical. Faculty most involved in research also have fewer complaints about facilities than do those most involved in teaching.

Regarding opinions about students, in five countries, over half of the faculty describe their students as excellent or good, although a look at language and math separately reveals some dissatisfaction. In nine of ten countries, less than one-third of the respondents report that their students are adequately prepared in writing and communication skills; in four countries, the figure is 20 percent or less. In most countries, faculty also feel that students lack adequate training in mathematics, with faculty in the United States being the least satisfied, and faculty in Hong Kong

Table 1.3

BASED ON YOUR EXPERIENCE AT THIS INSTITUTION, HOW WOULD YOU ASSESS RELATIONSHIPS BETWEEN FACULTY AND ADMINISTRATION? (PERCENTAGES)

	EXCELLENT	GOOD	FAIR	POOR
Australia	3	28	39	30
Brazil	6	46	35	12
Chile	3	25	48	24
Hong Kong	3	28	47	22
Israel	9	40	31	20
Japan	3	22	58	18
Korea	1	15	47	38
Mexico	6	43	37	15
The Netherlands	3	29	47	22
Russia	3	47	42	8
Sweden	4	34	41	21
United States	7	36	36	21

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 95.

being the most satisfied. In most of the countries, the largest proportion of faculty report that the quality of students is about the same as it was five years ago. In two countries, faculty feel that students were better prepared five years ago; in Korea, the largest proportion of faculty find that students are better now. Female faculty have more favorable attitudes about students than do males. There is widespread agreement that too many students, except students majoring in the respondents' own fields (an exception that probably deserves further scrutiny), are inadequately prepared to fully benefit from higher education.

Bridging issues of intellectual concerns and physical facilities are the courses professors teach and other aspects of their jobs, such as prospects

Table 1.4

TO WHAT EXTENT ARE YOU SATISFIED WITH THE COURSES YOU TEACH? (PERCENTAGES)

	SATISFIED	NEUTRAL	DISSATISFIED
Australia	77	16	7
Brazil	64	31	5
Chile	78	18	4
England	76	17	7
Germany	59	27	14
Hong Kong	72	23	5
Israel	81	17	2
Japan	54	35	11
Korea	82	15	3
Mexico	79	16	6
Russia	60	36	4
Sweden	74	21	5
United States	86	11	4

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 91.

for promotion and job security. Academics (especially in the humanities) seem relatively satisfied with what they teach (table 1.4), but have mixed feelings about the resources given to them to carry out their work. Females and junior faculty are less likely to be satisfied with their circumstances than are males and senior professors. Clearly, the latter enjoy greater benefits, encounter fewer hurdles, and can expect fewer surprises as their careers continue to unfold. Males and senior professors also teach fewer courses.

Generally, however, the demands for teaching are greater as enrollments continue to climb, and a large number of respondents report that this is occurring at a time when fewer resources are available. Many report a general unease about this situation, along with considerable pressure to be more productive as scholars and scientists.

In light of all of the above, it is hardly surprising that in half of the countries, two-thirds of the respondents report that relationships between faculty and administration are only fair or poor; in no country did even 10 percent judge these to be excellent.

The professoriate, especially female faculty, is not entirely satisfied with the overall situation of higher education. Many are uneasy about their lack of control over the contemporary situation, and a number are unsure of what the future holds. In addition, many respondents, with Japanese, Korean, and British scholars and scientists scoring especially high, report their careers to be a source of considerable personal strain. On the other hand, slightly less than a fifth of the faculty in Israel report experiencing this sort of tension, a finding that seems surprising given recent difficulties faced by the Israeli academic system. Finally, a majority of respondents in every country except the Netherlands believe that a sense of community is lacking on campus. Still, despite widespread dissatisfaction about many aspects of their day-to-day life, most academics indicate that they would again choose the academic profession if they were starting their careers over.

In sum, one could not readily conclude that faculty morale is either good or bad. The picture that emerges is quite blurred. The professoriate around the world may express considerable discontent, but it has not lost sight of the positive aspects of academic life.

There is ample evidence that professorial working conditions are deteriorating in most of the countries included in this study. In the countries of East Asia and Latin America objective circumstances seem to be fairly stable in terms of workload, salary, and the overall situation on campus. Elsewhere we find that classes are getting larger, faculty are under pressure to teach more, research funds are declining, and salaries are not keeping abreast of inflation. In a few countries, the significant systemic reorganization has created stress for academics, while in others, including the United States, retrenchment threatens some faculty. Indeed, we were surprised that the academic profession is as optimistic as our data indicate (table 1.5).

Table 1.5

IF I HAD IT TO DO OVER AGAIN, I WOULD NOT BECOME AN ACADEMIC (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	16	18	66
Brazil	15	7	78
Chile	16	12	72
England	20	17	63
Germany	17	15	69
Hong Kong	17	15	69
Israel	9	6	85
Japan	16	30	54
Korea	10	14	76
The Netherlands	13	18	69
Russia	11	17	72
Sweden	8	8	84
United States	11	10	79

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 94.

PROFESSIONAL ACTIVITIES: TEACHING, RESEARCH, AND SERVICE

There has been considerable concern about how the professoriate spends its time and about the level of productivity in higher education. How are teaching, research, and service organized in this broad range of countries? Are there significant variations? At the heart of such questions is the intensity of the commitment faculty feel to the students they teach, to the scholarship of their discipline, and to the institution in which they work.

While it is difficult to make broad generalizations not only among countries, but also among different academic ranks, disciplines, and institutional types, the data about professors' attitudes and investment of

Table 1.6

PLEASE INDICATE THE DEGREE TO WHICH YOUR AFFILIATION WITH YOUR ACADEMIC DISCIPLINE IS IMPORTANT TO YOU (PERCENTAGES)

	VERY IMPORTANT	FAIRLY IMPORTANT	NOT TOO IMPORTANT	NOT AT ALL IMPORTANT
Australia	67	27	5	2
Brazil	95	4	1	0
Chile	87	13	0	0
England	64	29	6	1
Germany	62	29	6	3
Hong Kong	68	27	3	2
Israel	75	23	2	0
Japan	69	28	3	0
Korea	80	19	1	0
Mexico	71	26	2	0
Russia	66	30	3	1
Sweden	55	34	9	2
United States	77	21	3	0

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 80.

time with regard to teaching, research, and service furthers our understanding of academic work in contemporary higher education.

Before exploring academics' professional activities, it is of interest to note the importance of their affiliation to their disciplines, departments, and institutions (tables 1.6 and 1.7). (Perhaps the results reflect the professionalism of the academy, despite the fact that in some countries professors are civil servants or the role of unions makes some of them reject the idea of their belonging to a profession.) In every country, the largest proportion ranks in order of importance their disciplines first, their departments second, and their institutions third. Academics

Table 1.7

PLEASE INDICATE THE DEGREE TO WHICH YOUR AFFILIATION WITH THIS INSTITUTION IS IMPORTANT TO YOU (PERCENTAGES)

	VERY IMPORTANT	FAIRLY IMPORTANT	NOT TOO IMPORTANT	NOT AT ALL IMPORTANT
Australia	22	52	21	6
Brazil	76	19	5	1
Chile	65	30	5	1
England	18	46	28	8
Germany	8	26	35	31
Hong Kong	28	50	18	4
Israel	42	46	10	2
Japan	31	48	19	2
Korea	37	51	11	1
Mexico	56	38	6	0
Russia	45	45	10	1
Sweden	19	47	29	5
United States	36	46	15	3

Source: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 80.

obviously value relationships with colleagues—whether on campus or far away. In only three countries, paradoxically all in Latin America (where, it will be recalled, high proportions of faculty have work commitments off-campus), do significant numbers of faculty believe their institutions are very important. In the other countries, the majority of the respondents rank the institution where they hold an appointment as only moderately important.[7] This finding may be surprising given the modest level of mobility for faculty among institutions in most countries.

Teaching is a primary activity of the professoriate in most of the countries in the survey, but a significant proportion of academics in a large number of the countries express, both in word and deed, a real

Table 1.8

REGARDING YOUR OWN PREFERENCES, DO YOUR INTERESTS LIE PRIMARILY IN TEACHING OR IN RESEARCH? (PERCENTAGES)

	PRIMARILY IN TEACHING	LEANING TO TEACHING	LEANING TO RESEARCH	PRIMARILY IN RESEARCH
Australia	13	35	43	9
Brazil	20	42	36	3
Chile	18	49	28	5
England	12	32	40	15
Germany	8	27	47	19
Hong Kong	11	35	46	8
Israel	11	27	48	14
Japan	4	24	55	17
Korea	5	40	50	6
Mexico	22	43	31	4
The Netherlands	7	18	46	30
Russia	18	50	29	3
Sweden	12	21	44	23
United States	27	36	30	7

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 81.

commitment to research (tables 1.8 and 1.9). It is significant that in the United States, where there has been so much criticism recently of an overemphasis on research by American academics, the majority indicate that their primary interest and commitment is to teaching. The U.S. is joined by Brazil, Chile, and Russia in this preference. The majority of faculty in the other countries lean toward or have primary interest in research. In Japan, Sweden, the Netherlands, Germany, and Israel, a strong proportion of scholars and scientists express a primary commitment to research. The other countries hover closer to half and half, but

Table 1.9

MEAN HOURS PER WEEK OF PROFESSIONAL WORK, BY TEACHING OR RESEARCH PREFERENCE

	TEACHING PREFERENCE	RESEARCH PREFERENCE
CLASSES IN SESSION		
Teaching	22.2	17.1
Research	10.3	20.3
Service	6.5	5.2
Administration	7.7	7.2
Other	3.1	3.4
Total	49.8	53.2
CLASSES NOT IN SESSION		
Teaching	9.0	6.4
Research	16.8	28.6
Service	6.7	5.2
Administration	7.1	6.0
Other	3.7	3.9
Total	43.3	50.1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ.

interest in research remains on top. More males have an orientation to research, while more females are primarily interested in or lean toward teaching.

On average, respondents spend close to twenty hours a week in teaching activities when classes are in session. This ranges from more than twenty-two hours a week in Australia and Korea to fewer than seventeen hours a week in Mexico or Sweden, and includes time for tutorials, lab sessions, and preparation. At the same time, in Australia and Chile, faculty spend considerably more time on teaching than on research. Senior faculty are more likely than junior faculty to favor research over teaching, although the former are not necessarily more involved nor more productive as researchers. A sizable proportion of respondents in most countries report no hours at all spent on service, but a notable contrast is that in Brazil and Mexico, faculty spend on average more than ten hours in a typical week on service activities.

Service activity—defined as paid and unpaid work with a professional organization or with clients or patients, at the university or off-campus, and committee work at the institution—is also an academic responsibility. Many report that they are paid for a portion of their service and consulting work. As indicated in a few countries, they note that this income is necessary for economic survival.

Regardless of whether school is in session, those who prefer teaching over research spend somewhat more time on local or campus-related activities (teaching, service, and administration) than do those who prefer research over teaching. But faculty who prefer research spend a few more hours per week on their total professional work when classes are in session and several more per week during breaks. This is accounted for by the much larger portion of hours they spend on their research than those whose preference is for teaching. But regardless of preferences, their involvement in research increases when classes are not scheduled.

It is also the case that the academic profession is largely a *teaching* profession, in which people spend most of their time, when classes are in session, on teaching and university service activities. This is true for the majority of countries in the survey.

As far as types of classes are concerned, most respondents teach a combination of undergraduate and graduate/professional students. The majority also report that the traditional lecture is the primary means of communicating knowledge, although class discussions are prominent in all of the countries surveyed except Japan.

Despite their putative interest in it, scholars in most countries publish remarkably little research, at least as expressed by a simple count of number of publications, including books and articles.[8] It is worth noting, however, that in many disciplines (e.g., in the sciences) books are not the conventional mode of reporting research. Just fewer than half of the sample responded to a question asking whether they had authored or edited scholarly books in the previous three years; half of the respondents had not published a book, and for the minority who had published, the mean number of books was 1.1. Fewer than one in five had edited a book—the mean number of edited books was 0.74. In sum, at the very most, a quarter of the respondents report publishing a book in the previous three years. The actual figure, of course, could be considerably smaller.

A significantly larger proportion of the sample responded to a question asking for the number of scholarly articles they had published in the previous three years. Of those who responded, the mean number is just under six, or about two articles a year. Ten percent report publishing no articles. The average number of papers presented at a scholarly conference over the previous three years is slightly below five. On the whole, male faculty are more involved in research and publication than are female faculty. Consistent with expressed interests, academics in the Netherlands, Israel, Germany, Japan, and Sweden generally publish more articles than those in other countries.

Rates of publication may relate to funds available for research, to the nature and emphasis of the system of evaluation for academic promotion, and to the academic culture in the country. For example, scholars and scientists who indicate that their primary commitment is to research publish more and obtain more research funds than do those who stress teaching. It is clear that research is easier to assess than teaching, and this may also contribute to the research culture that is emphasized by many of the academics in this study.[9]

Only a small minority of the academic profession in the fourteen countries does most of the publishing and obtains most of the research funds. There is a clearly identifiable "research cadre," usually located at the top universities, that accounts for a very significant proportion of research production. The four factors that characterize a clear research commitment (and subsequent productivity) are, first, whether individuals were more interested in research than in teaching; second, whether on average they spent more time on research and less time on teaching than others; third, whether they published scholarly books and articles; and fourth, whether they received funding for their research. The professoriate in four countries (Brazil, Chile, Mexico, and Russia) stood out as having the lowest research commitment, while those in five countries (Germany, Israel, Japan, the Netherlands, and Sweden) could be characterized as having a relatively high commitment.

It is unclear why academics as a whole express a commitment to the idea of research while actual productivity is in fact limited to a minority of the profession.[10] More than three-quarters of those faculty members who indicate that their academic positions require them to be involved in research report that they actually are (the figure is more than 90 percent in the United States, Australia, Israel, Hong Kong, and Sweden). Only a small number report significant publications, i.e., more than two articles and two presentations or papers in a year and more than one book in three years. Why more academics do not produce more publications from their research more often may have to do with time rather than with money, as about half of the respondents in most countries report that they had received some funding for their research (less than half in Russia, Brazil, and Mexico). In most cases, however, the amounts of money were relatively small. Members of the research cadre, numbering less than 5 percent of those who report receiving any funding, indicate that they received significant financial support. Many scholars feel—probably quite accurately—that research funding is more difficult to obtain now than five years ago. This perception was most acute in Israel, England, Germany, Russia, and the United States.

Faculty express some ambivalent attitudes concerning research. More than three-quarters in all countries, excepting Brazil, Russia, and Korea, note that a strong record of successful research activity is important in faculty evaluations, and in six countries a majority agree that it is difficult for a person to achieve tenure if he or she does not publish (table 1.10). Many feel that they are under pressure to do more research than they would like to—more than 30 percent in six of the countries (table 1.11).

At the same time, those who write more articles and books are, sometimes by great margins and sometimes by narrow margins, more satisfied with their work life and less likely to feel vulnerable to acute and chronic pressures they encounter on campus than those who write fewer

Table 1.10

IN MY DEPARTMENT IT IS DIFFICULT FOR A PERSON TO ACHIEVE TENURE IF HE OR SHE DOES NOT PUBLISH (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	64	15	21
Brazil	25	21	55
Chile	33	35	32
Germany	78	8	14
Hong Kong	60	16	24
Israel	81	4	15
Japan	48	23	29
Korea	38	15	48
Mexico	28	24	48
Russia	32	41	27
Sweden	58	18	24
United States	75	8	17

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 84.

articles and books. There is a relationship between research productivity and a sense of empowerment and overall satisfaction.

Nonetheless, faculty worldwide do not endorse the view that teaching and research necessarily work at cross-purposes. Indeed, more faculty than not are convinced that their research has a positive influence on their teaching, and the majority of faculty in all countries except Hong Kong are of the opinion that the pressure to publish does not reduce the quality of teaching. However, such a conflict is noted by a significant minority in Chile, England, Israel, the Netherlands, Germany, the United States, and Australia. Administrative assignments are seen as having a more negative influence on research than on teaching.

Table 1.11

I FREQUENTLY FEEL UNDER PRESSURE TO DO MORE RESEARCH THAN I ACTUALLY WOULD LIKE TO DO (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	31	23	46
Brazil	13	17	71
Chile	38	27	36
England	34	24	42
Germany	28	17	55
Hong Kong	36	21	43
Israel	13	12	76
Japan	37	31	32
Korea	36	18	45
Mexico	20	25	55
The Netherlands	22	26	52
Russia	12	47	41
Sweden	25	21	54
United States	30	20	50

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 84.

Regarding expectations of students, instructors in most countries establish a variety of requirements, including regular class attendance, written work, oral presentations, and examinations. Considerable disagreement was found on whether teaching effectiveness should be the primary criterion for promotion. Academics in every country feel that students should have a role in evaluating teaching, but in general, senior faculty were more likely than junior faculty to express reservations about the merits of a more active student role in academic affairs.

In common with respondents in Carnegie surveys of the U.S. academic profession, international respondents report that they devote many hours to teaching, research, service, and administrative activities.

There are some variations according to country and further differences according to institutional affiliation and to gender and rank. Most of those surveyed express a significant commitment to all of the standard faculty roles but are most impatient with their administrative responsibilities. At the same time, they are also critical of administrators who have taken over these tasks.

GOVERNANCE

It is well known that there are striking variations in governance arrangements from one country to another; in some countries colleges and universities are government controlled, while in others committees composed of a mix of academics and officials set policy, and in yet others there is a tradition of institutional independence. Funding sources for institutions range from total government support to only private support. In a small majority of the countries included in our survey, most academic institutions are government-sponsored, although in Japan, Korea, and the three Latin American countries, a majority of students study in private colleges and universities. Yet academics everywhere have a significant degree of autonomy, and the ideology of internal governance in colleges and universities is strong.

Our survey asked scholars and scientists to reflect on issues of governance, and some common concerns emerged. Respondents, when asked about institutional centralization and decentralization, generally report that there is a mixture when it comes to most of the major elements of decision making. Since World War II, as higher education rapidly expanded, the sense of academic community has been weakened. Many of our respondents are aware of this and are also concerned about the trend toward centralized power in higher education. They are unhappy and unsure about how to cope with the more hierarchical, more rigid governance structure. As a result, faculty dissatisfaction with current administrative and governance arrangements is high, and a cause for concern. Senior faculty were more sympathetic to administrators than were junior faculty, who had more questions about the competence and goodwill of those who manage institutions of higher learning. Not

Table 1.12

HOW INFLUENTIAL ARE YOU, PERSONALLY, IN HELPING TO SHAPE KEY ACADEMIC POLICIES AT THE INSTITUTIONAL LEVEL? (PERCENTAGES)

	VERY INFLUENTIAL	SOMEWHAT INFLUENTIAL	A LITTLE INFLUENTIAL	NOT AT ALL INFLUENTIAL
Australia	2	6	14	78
Brazil	3	18	36	43
Chile	3	14	20	64
England	2	8	16	74
Germany	1	5	14	80
Hong Kong	1	6	13	81
Israel	5	7	31	57
Japan	5	24	40	31
Korea	3	8	33	57
Mexico	3	13	23	61
Russia	3	19	25	53
Sweden	5	13	18	64
United States	3	11	22	64

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 94.

surprisingly, many believe that they have most influence on decision making in their academic department or similar unit, with majorities in almost all countries feeling that they were either very influential or somewhat influential at this level. Respondents in Germany and Mexico are least likely to express this view.

At the same time, fewer than 10 percent in almost all of the countries feel that they play a key role in governance at the institutional level (table 1.12). Obviously, scholars and scientists around the world feel considerable alienation from the higher echelons of administration at their institutions. An unusually large number express dissatisfaction with and

Table 1.13

TOP-LEVEL ADMINISTRATORS ARE PROVIDING COMPETENT LEADERSHIP (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	29	26	46
Brazil	46	27	27
Chile	28	31	42
England	26	25	49
Germany	24	27	49
Hong Kong	23	29	48
Israel	28	31	41
Japan	60	22	18
Korea	24	31	45
Mexico	33	23	44
The Netherlands	32	42	26
Russia	30	53	17
Sweden	30	38	32
United States	39	22	38

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 97.

doubts about the quality of the leadership provided by top-level administrators at their colleges and universities—Japan is the only country in which a majority of the respondents agree that top administrators are providing competent leadership (table 1.13). The distrust is pervasive. Less than half feel that they are informed about what is going on, and close to half characterize communication between the faculty and the administration as poor.

In eight countries, the majority of faculty report that academic administrators are autocratic (table 1.14), and in six countries, a majority agree that a lack of faculty involvement in governance is a problem. Only in Brazil, Israel, the United States, and Japan do more than half of the

Table 1.14

THE ADMINISTRATION IS OFTEN AUTOCRATIC (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	63	23	14
Brazil	44	20	36
Chile	58	23	19
England	64	21	16
Germany	67	21	13
Hong Kong	64	23	13
Israel	57	24	19
Japan	40	34	26
Korea	46	30	24
Mexico	54	20	27
The Netherlands	37	38	25
Russia	43	41	16
Sweden	43	36	21
United States	58	22	20

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 96.

faculty feel that administrators even support academic freedom. Other questions elicit a general dissatisfaction on the part of faculty. Granted, the financial setbacks higher education has faced in recent years have contributed to faculty unrest. Yet, there is clearly a need to create new mechanisms to bring faculty and administrators together to resolve problems, reestablish communications, and renew collegiality so that in the end mutual trust and respect are fostered.

Academic freedom is one of the core values of higher education. Our respondents, in general, have reasonable confidence that they are protected by this principle (table 1.15). Large majorities in every country (except Russia and Brazil) note that they are free to determine the content

Table 1.15

IS ACADEMIC FREEDOM STRONGLY PROTECTED IN THIS COUNTRY? (PERCENTAGES)

	YES	NO
Australia	77	23
Brazil	38	62
Chile	71	29
Hong Kong	71	30
Israel	92	8
Japan	79	21
Korea	74	26
Mexico	69	31
The Netherlands	74	26
Russia	16	84
Sweden	83	17
United States	81	19

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 99.

of the courses they teach, and similarly large numbers feel free to do research on any topic of interest. Since intellectual freedom is indeed at the heart of academia, the widespread sense of security about its strength may be a key factor contributing to academics' overall satisfaction with their chosen careers despite problems with marginal conditions.

When it comes to perceptions of restrictions on what a scholar or scientist can teach or publish, additional variations were noted, some of which seem to conflict with the notion of academic freedom (tables 1.16 and 1.17). While a strong majority of the respondents feel free to determine course content, significant numbers do feel constraints: one-third in the United States, for example, and more than 40 percent in Korea. Current debate in the United States concerning "political

Table 1.16

AT THIS INSTITUTION, I AM FULLY FREE TO DETERMINE THE CONTENT OF THE COURSES I TEACH (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	67	9	24
Brazil	69	9	22
Chile	70	14	17
England	62	14	25
Germany	61	15	24
Hong Kong	61	9	29
Japan	80	13	7
Korea	90	7	3
Mexico	65	14	21
Russia	45	27	28
Sweden	64	13	24
United States	78	8	14

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 100.

correctness" may cause some in the social sciences and humanities to feel that there are limits on expression. The responses of Korean academics can be explained by the fact that, although the campuses have been hotbeds of activism (and of repression) in previous regimes, democracy is a recent phenomenon in Korea and activism continues on a more sporadic basis.

The issue of the evaluation of academic work is currently of considerable interest to scholars around the world. A significant proportion of faculty in all countries except Korea and Russia report that a strong research record is important in faculty evaluation. Understandably, those who feel the least need to publish also feel little pressure about doing research (again, this is most true for Brazil, Mexico, Israel, and Russia). Israel presents an interesting case, though, since 81 percent of the

Table 1.17

I CAN FOCUS MY RESEARCH ON ANY TOPIC OF SPECIAL INTEREST TO ME (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	81	7	12
Brazil	72	12	16
Chile	76	14	11
England	79	10	11
Germany	63	14	23
Hong Kong	83	8	9
Japan	87	8	5
Korea	85	10	5
Mexico	66	14	20
Russia	65	19	16
Sweden	79	8	13
United States	89	5	6

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 100.

faculty believe that they must publish, but only 13 percent feel that they are asked to do more than they would like.

Scholars and scientists in most of the countries said that their work is regularly evaluated (table 1.18). Only in Germany and Russia do up to a third report that this is not so. (Here, the United States, with more than 85 percent of the faculty reporting regular evaluation, ranked highest.) Respondents in all countries note that teaching is evaluated most often, with research coming second; service activities are seldom assessed. In Brazil, England, Hong Kong, Mexico, and the United States, more than 90 percent report regular evaluation of teaching. Only in the Netherlands is research evaluated more frequently than teaching. Students are most likely to evaluate teaching—96 percent and 91 percent of faculty in

Table 1.18

WHICH OF THESE ACTIVITIES ARE APPRAISED OR EVALUATED REGULARLY? (PERCENTAGES)

	TEACHING	RESEARCH	SERVICE
Australia	89	78	42
Brazil	93	71	38
Chile	88	85	0
England	94	91	33
Germany	42	83	25
Hong Kong	92	73	38
Israel	87	54	8
Japan	45	95	17
Korea	65	97	11
Mexico	92	53	25
The Netherlands	69	87	17
Russia	86	57	8
Sweden	77	65	12
United States	97	77	68

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 85.

Note: More than one response could be selected.

Sweden and the United States, respectively, report that students regularly evaluate their teaching (table 1.19). And only in Korea is the percentage less than half (12 percent). In Korea, however, senior administrators, rather than students, evaluate teaching. In most countries, in addition to evaluation by students, respondents report that heads of department regularly evaluate teaching. Despite the general commitment to evaluation, we found widespread dissatisfaction with the way teaching is assessed. Most faculty in all countries agree that better methods are necessary to make the process more meaningful.

Table 1.19

BY WHOM IS YOUR TEACHING REGULARLY EVALUATED? (PERCENTAGES)

	YOUR PEERS IN YOUR DEPARTMENT	THE HEAD OF YOUR DEPARTMENT	MEMBERS OF OTHER DEPARTMENTS AT THIS INSTITUTION	SENIOR ADMINISTRATIVE STAFF AT THIS INSTITUTION	YOUR STUDENTS	EXTERNAL REVIEWERS
Australia	28	64	6	11	74	6
Brazil	53	51	15	28	54	5
Chile	30	61	26	23	51	4
Germany	30	44	6	8	59	2
Hong Kong	23	70	7	23	76	24
Israel	24	45	7	7	85	7
Japan	42	43	10	41	37	5
Korea	18	29	9	70	12	8
Mexico	37	62	23	55	57	10
The Netherlands	49	29	7	7	79	17
Russia	32	76	14	21	62	6
Sweden	20	26	11	7	96	9
United Kingdom	16	67	7	13	67	21
United States	49	78	16	34	91	7

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 85.

Note: More than one response could be selected.

Table 1.20

AT THIS INSTITUTION PUBLICATIONS USED FOR PROMOTION DECISIONS ARE JUST "COUNTED," NOT QUALITATIVELY EVALUATED (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	52	27	20
Brazil	45	22	34
Chile	54	24	22
Hong Kong	59	24	18
Israel	34	20	45
Japan	46	28	27
Korea	52	17	31
Mexico	55	21	24
The Netherlands	48	18	34
Russia	61	25	14
Sweden	27	28	45
United States	45	17	38

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 87.

Research seems often to be less rigorously evaluated, at least formally. A surprising percentage of respondents say that at their institutions publications are just "counted," not qualitatively evaluated (table 1.20). For most countries, heads of department are the main evaluators of research, but on occasion external reviewers, departmental peers, and senior administrative staff also play a role.

INTERNATIONAL DIMENSIONS OF ACADEMIC LIFE

We are convinced that as the world has become increasingly interdependent and national academic boundaries have been blurred, science and scholarship are becoming increasingly international. Indeed, we found

Table 1.21

INTERNATIONAL ACTIVITIES OF FACULTY FOR THE LAST THREE YEARS, BY TEACHING OR RESEARCH PREFERENCE

	TEACHING (MEAN NUMBER OF TIMES)	RESEARCH (MEAN NUMBER OF TIMES)
Published in another country	1.3	4.0
Article or book written in another language	1.2	4.2
Organized classes for foreign students	1.1	1.2
	TEACHING (MEAN NUMBER OF MONTHS)	RESEARCH (MEAN NUMBER OF MONTHS)
Worked on research with academics from abroad	1.8	5.2
Traveled abroad for study or research	1.5	2.6
Served as faculty in another country	0.5	1.1
Spent sabbatical abroad	0.4	0.8

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ.

Note: Only between 45 and 60 percent of respondents answered these questions.

that while international consciousness in all of the countries in the survey, except the United States, is quite high in certain ways, actual international involvement is somewhat limited. Among the relatively small minority who are heavily involved in research, five countries—Sweden, Germany, Hong Kong, the Netherlands, and Israel—had significantly more international publications than the rest, and four of the five (not Germany) plus Japan reported writing more frequently in a language other than their own.

On all but two of the fourteen measures of international activity (teaching classes for foreign students within the last three years and within the last ten years), those more committed to research than teaching had a greater likelihood of international involvement. That is, professors oriented to research are, not surprisingly, the professors who more often write for an international audience, travel and work abroad, and have relationships with academics in other countries (table 1.21). The ease of spreading ideas through improved technology and the synergistic aspects of academics' research has contributed to increased internationalism, particularly in the natural sciences.

A relatively high proportion of scholars and scientists report that foreign faculty have taught at their institutions or that foreign students have come to study there—with the United States, Australia, Japan, and Russia scoring especially high in these activities. In all countries except Korea, 50 percent or more of faculty report that foreign students have been enrolled at their institutions, at least occasionally; the number of faculty reporting that students from their institutions study overseas was also impressive.

Faculty worldwide are convinced that the curriculum should be more international in scope (table 1.22). (In Israel, where less than one-third of the respondents supported this idea, the curriculum is already international in scope.) Next lowest were the United States and Australia, where not quite half of the faculty were in favor of this idea.

Overall, the academic profession expresses a high degree of commitment to internationalism. There is considerable support for international exchange. In the past three years, over half of the professoriate in ten countries made at least one trip abroad for study or research (table 1.23).

Table 1.22

THE CURRICULUM AT THIS INSTITUTION SHOULD BE MORE INTERNATIONAL IN FOCUS (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	47	40	13
Brazil	61	22	17
Chile	79	12	9
Germany	57	31	12
Hong Kong	66	27	7
Israel	29	32	39
Japan	67	31	2
Korea	76	20	4
Mexico	75	17	8
Russia	59	39	3
Sweden	59	34	7
United States	45	37	18

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 104.

The range is quite wide. Israel leads the way, with more than 90 percent of the respondents studying abroad. At the other extreme, Brazil, Russia, and the United States trail well behind, with only about one-third reporting such activity. Fewer faculty spend time teaching in other countries. Again, Israeli faculty are the most active—more than 65 percent say that they had taught abroad in the past three years—followed by faculty from the Netherlands and Hong Kong. On the other hand, fewer than 10 percent of the professoriate from Brazil, Korea, Japan, Russia, and the United States—countries with larger systems of higher education—have recently taught overseas.

More than three-quarters of respondents in most countries indicate that contacts with scholars in other countries are important for their

Table 1.23

FOR HOW MANY MONTHS DURING THE PAST THREE YEARS HAVE YOU TRAVELED ABROAD TO STUDY OR DO RESEARCH? (PERCENTAGES)

	NONE	ONE OR MORE
Australia	38	62
Brazil	63	37
Chile	39	61
England	47	53
Germany	35	65
Hong Kong	28	72
Israel	7	93
Japan	45	55
Korea	38	62
Mexico	57	43
The Netherlands	30	70
Russia	64	36
Sweden	25	75
United States	65	35

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 104.

professional work (table 1.24). Notably, only the United States and England scored lower. In all countries except the United States, more than 90 percent of faculty indicate that a scholar or scientist must read books and journals published abroad to keep up with his or her discipline (table 1.25). Similarly, faculty overall agree that colleges and universities should do more to promote student and faculty mobility from one country to another, with the United States scoring well below the average on this item, too.

English is increasingly the language of research, perhaps contributing to the feeling by American and British scholars that they need not be so

Table 1.24

CONNECTIONS WITH SCHOLARS IN OTHER COUNTRIES ARE VERY IMPORTANT TO MY PROFESSIONAL WORK (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	81	15	4
Brazil	85	11	4
Chile	95	3	2
England	63	26	11
Germany	78	14	8
Hong Kong	85	12	4
Israel	86	8	6
Japan	88	11	2
Korea	91	8	1
Mexico	79	15	6
The Netherlands	81	11	8
Russia	89	11	1
Sweden	87	11	2
United States	55	26	19

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 106.

concerned about academic contacts with the rest of the world. Faculty and students are increasingly peripatetic, with more than one million students studying outside their home countries. The United States and Britain are major host nations and account for approximately half of the world's total. They also host a highly disproportionate percentage of visiting scholars and scientists. Events have fostered a more professionally connected, international community of scholars and scientists, and there is a deep conviction both that higher education is an international enterprise and that the academic profession is becoming a more global community. Internationalism in all aspects of academic life will inevitably increase in the coming years.

Table 1.25

IN ORDER TO KEEP UP WITH DEVELOPMENTS IN
MY DISCIPLINE, A SCHOLAR MUST READ
BOOKS AND JOURNALS PUBLISHED ABROAD (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	98	2	1
Brazil	92	3	4
Chile	98	1	1
Germany	91	5	4
Hong Kong	98	1	1
Israel	98	2	0
Japan	93	5	2
Korea	96	4	1
Mexico	91	6	3
The Netherlands	95	3	3
Russia	99	1	0
Sweden	96	3	1
United States	62	17	22

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 105.

ATTITUDES REGARDING HIGHER EDUCATION AND SOCIETY

As the academy moves toward the twenty-first century, some important questions must be addressed—issues relating to access, equity, and expansion. Following World War II, student enrollment policies began to shift in many countries, so that today even the most elitist systems have increased the access to higher education. All of the academic systems included in this survey have dramatically increased enrollments in recent years and, with the exception of the United States, enrollment growth continues. Yet, little effort has been made to determine what faculty think about this fundamental change, one that affects the climate of the campus and the work of the professoriate so profoundly.

Overall, faculty in most countries believe that a majority of young people can complete secondary education. Moreover, two-thirds of the scholars and scientists sampled support the idea that any student who can meet minimum entrance requirements for postsecondary education should be permitted to pursue at least a bachelor's degree, which leaves a third holding reservations about expanded educational opportunity. On the other hand, faculty in Germany, where admittance to one institution means a student can attend or transfer to any of the others, overwhelmingly support open access.

In the United States, more than half of the relevant age group currently pursues postsecondary education; this is the greatest number among the fourteen countries, yet academics elsewhere seem to be supportive of the continuing expansion of higher education in their countries. At the same time, with the exception of Australia, where half of the respondents were in favor, few respondents believe that admission standards should be lowered to permit disadvantaged students to enroll. In the other countries, the proportion ranged from 7 percent in Japan to 38 percent in Chile, with the United States in the middle at somewhat under 20 percent. Clearly, while the academic profession favors continuing expansion of higher education, they are not at this point in time broadly committed to such programs as special admission criteria or affirmative action for disadvantaged students.

Additional responses further indicate that the academic profession supports the ideas that higher education should prepare students for work, that research and scholarship should continue to be a key part of the mission of the university, that intellectual inquiry should be protected, and that higher education should help to solve basic social problems. The response to this final question was overwhelmingly affirmative—except in Russia and Sweden (table 1.26). We believe that these figures reflect the faculty's confidence in the practical value of their knowledge.

Despite their optimism about what they might accomplish, academics do not generally believe that they wield much influence in their

Table 1.26

FACULTY IN MY DISCIPLINE HAVE A PROFESSIONAL OBLIGATION TO APPLY THEIR KNOWLEDGE TO PROBLEMS IN SOCIETY (PERCENTAGES)

	YES	NO
Australia	86	14
Brazil	78	22
Chile	74	26
England	79	21
Germany	93	7
Hong Kong	84	16
Israel	76	24
Japan	81	19
Korea	86	14
Mexico	86	14
The Netherlands	87	13
Russia	61	39
Sweden	68	32
United States	82	18

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 102.

countries. The most optimistic professors were in Korea, where they feel that they have relatively high levels of influence; those in England and Israel do not. With regard to England, one wonders what the responses would have been a decade or two ago, before the Conservative government's restructuring of the higher education system. In any case, despite the importance of colleges and universities in modern society, academics do not feel that they are among the most influential opinion leaders (table 1.27). Another measure of public support for higher education is the respect academics feel they receive in their own country

Table 1.27

ACADEMICS ARE AMONG THE MOST INFLUENTIAL OPINION LEADERS IN MY COUNTRY (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	19	27	54
Brazil	39	17	44
Chile	16	30	54
England	11	25	63
Germany	15	29	56
Hong Kong	26	36	38
Israel	12	26	62
Japan	40	46	15
Korea	63	29	8
Mexico	30	28	42
Russia	24	33	43
Sweden	30	29	41
United States	21	27	52

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 102.

(table 1.28). While responses vary, the general pattern is, again, not encouraging: about 60 percent of faculty feel that overall respect for academics is declining in their country—ranging from a high of nearly 80 percent in Brazil to a low of 40 percent in the Netherlands and Sweden. Scholars and scientists in a number of countries feel that institutions of higher learning are increasingly subject to interference from special interest groups. This is particularly true for respondents from the United States, England, Mexico, Brazil, and Australia.

When asked whether government should define the overall purposes and policies for higher education, faculty responses ranged from a high of 90 percent in Russia to a low of 10 percent in the United States, with other countries clustering between 20 percent and 50 percent. When

Table 1.28

RESPECT FOR ACADEMICS IS DECLINING (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	57	32	11
Brazil	78	10	12
Chile	51	28	21
England	73	20	7
Germany	50	29	20
Hong Kong	49	33	18
Israel	60	23	18
Japan	65	30	6
Korea	69	22	9
Mexico	56	20	24
The Netherlands	44	41	15
Russia	64	26	10
Sweden	43	36	21
United States	64	23	13

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 101.

asked if government interferes too much in important academic policies, responses varied from 90 percent in Korea to less than 20 percent in Chile (table 1.29). In Russia and the United States, about one-third of the faculty feel that there is too much government interference. It is striking that Russian faculty favor governmental policymaking but believe there is too much interference.

Generally, scholars and scientists are supportive of a significant societal mission for higher education and support expansion so that qualified young people can obtain access to postsecondary education. Yet they would, for the most part, like to distance themselves and their institutions from government edicts and officials.

Table 1.29

IN THIS COUNTRY, THERE IS FAR TOO MUCH GOVERNMENTAL INTERFERENCE IN IMPORTANT ACADEMIC POLICIES (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE
Australia	57	26	17
Brazil	42	23	35
Chile	17	32	51
Hong Kong	43	32	25
Israel	31	22	48
Japan	48	41	11
Korea	89	8	3
Mexico	55	22	23
The Netherlands	46	32	22
Russia	33	39	27
Sweden	25	36	39
United States	34	33	33

SOURCE: Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994), 99.

CONCLUSION

This portrait of the academic profession in fourteen countries shows a complex web of attitudes and values. One cannot but be struck by the many similarities among the scholars and scientists in these diverse countries. It is with regard to those working conditions most affected by local political and cultural customs and policies that international differences are most apparent.

The professoriate worldwide is committed to teaching and research, and in varying degrees to service. While there is a feeling that higher education faces many difficulties and that conditions have deteriorated in recent years, most academics are committed to the profession and to its traditional values of autonomy, academic freedom, and the importance of scholarship, both for its own sake and for societal advancement. Academics are not especially supportive of senior administrators, yet they express remarkable loyalty to the profession and to other academics. They seem prepared to respond to the call that higher education contribute more tangibly to economic development and social well-being. They believe that they have an obligation to apply their knowledge to society's problems.

Specific national circumstances have no doubt shaped the responses to the questionnaire. Dramatic societal transformation and stresses in Russia, the structural changes in higher education of the past decade in the United Kingdom, and continuing tension between academics and the government over salary issues in Israel, to name just a few examples, are factors that have obviously influenced the responses reported here. Continuing expansion and diminishing resources have characterized the academic landscape in virtually all countries. To be sure, if there were more money and resources available and if academic administrators did not have to say no so often, there would be fewer criticisms of how institutions of higher education were managed.

Resiliency, determination, and a focus on the core functions of higher education characterize the academic profession in these fourteen countries. While the vicissitudes experienced by the profession in recent years have been considerable, the professoriate is by no means demoralized. In all but three countries, 60 percent or more agree that this is an especially creative and productive time in their fields. Professors are generally satisfied with the courses they teach, and with few exceptions are pleased with the opportunities they have to pursue their own ideas. The intellectual atmosphere is good; faculty do not regret their career choices and are generally happy with their relationships with colleagues.

This portrait of the professoriate depicts a strong, but somewhat unsettled profession. Academics around the world are inspired by the intellectual ferment of the times. The intrinsic pleasures of academic life obviously endure. Academe is facing the future with concern but with surprising optimism.

AUSTRALIA

Barry A. Sheehan and Anthony R. Welch

THE AUSTRALIAN ACADEMIC PROFESSION

INTERNATIONALLY, higher education systems have recently been subject to critical scrutiny and reform. They have been caught up in significant shifts in the social, political, and economic contexts within which they operate. This international study seeks to explore these changes and their effect on the academic profession. Who are the academics? What are their working conditions? What motivates academic work? What are their attitudes to key elements in their working environment? What are the major differences between academics on such questions by, for example, gender, rank, age, or type of institution? What are their values and perceptions of change?

Earlier studies of the academic profession in Australia have included the major survey of the social and educational role and values of Australian academics by Bowden and Anwyl in the late 1970s,[1] as well as studies on particular aspects of the Australian academic community.[2] In today's interconnected world, however, an international perspective is crucial for understanding established and emerging trends and for learning how academic life functions in different cultures and under various conditions. Comparative studies are also important to the internationalization of the academic labor market at a time when the international traffic in academics is likely to accelerate, given projections of academic staffing shortages in a number of countries.

This chapter presents a case study of some aspects of the Australian academic profession and provides selected data on the issues listed above. Limited comparisons are drawn with data from other countries in the study, particularly in relation to the internationalization of the profession. The Australian component of the project used the internationally agreed-upon survey methodology to provide a comprehensive database.

The Australian questionnaire contained most of the agreed-upon questions and issues, but it proved necessary at times to ask a different question in order to tap the same dimension cross-culturally. Additional items of particular interest to the researchers in Australia were also added to the instrument, in particular, those related to personal inventory issues (such as socioeconomic background and intergenerational mobility, national origin and ethnicity, and gender) and perceptions of and attitudes toward change over the previous five years. The questionnaire provides an item bank allowing analysis across more than 350 variables.

The data thus obtained can also be used effectively for descriptive purposes in combination with the excellent statistical information collected and reported by the Commonwealth Department of Employment, Education and Training (DEET) with respect to all higher education institutions in the country. Survey findings are complemented by such statistics where appropriate, and other relevant research, but in order to understand the findings, some details of the development and current context of Australian higher education are first provided.

Background and Context

Increasing student enrollments during the past decade have meant rapid growth of Australia's higher education sector. Almost all Australian higher education institutions were established by legislation of the respective states and originally funded by state treasuries. The greater rationale for their establishment beyond simple demand for higher education was the recreation of the social order and institutions of the "mother country." The early universities were, therefore, modeled upon the great British universities. By 1913, each of the six states had a major metropolitan university loosely based on either the Oxbridge or Dublin model. The professoriate remained dominated by expatriate British dons until the 1950s.

Australia felt its distance from the "old country," and time and costs associated with the "tyranny of distance"[3] made it difficult to sustain the English idea of a university in an alien environment. However, the British-educated professors made few concessions to the indigenous culture of their students. Furthermore, there was little research experience in Australian universities, and it was not until 1947 that the first Australian doctorate was awarded. A generous sabbatical leave scheme, a limited number of scholarships for the most able students, and the continuing recruitment of English graduates to chairs and lectureships in Australia combined to maintain some international perspective on academic standards. The academic profession in Australia was structurally akin to that in Britain (and still is), in that professors comprised no more than a few percent of the academic population and were all chairholders. Initially, access to the rank of professor was controlled through a strict hierarchical apprenticeship system, which was justified by arguments about the maintenance of standards. Traditional academic values and standards were well learned by acolytes who gradually worked their way up the academic hierarchy, with some notable indigenous achievers gaining chairs.

On the eve of World War II, 0.2 percent of Australia's total population attended university. Total student enrollment was 14,236, of whom 8,240 were enrolled in the two oldest universities of Sydney and Melbourne. The size of the cohort reflected both the very small segment of society that completed secondary school, and a substantial social selectivity: minorities were significantly underrepresented. Following the war, more students began to complete secondary school (either academic or technical) and go on to study in a growing system of technical colleges/polytechnics, as well as universities.

As a result of policy initiatives of the federal government, significant structural changes have occurred in Australia's higher education sector over the past decade.[4] Most notable, as seen above, was the abolition of the binary system of universities and colleges of advanced education. By 1992 widespread amalgamations had consolidated higher education institutions into the Unified National System (UNS) of thirty-five publicly funded universities.[5] In addition to the UNS there are four publicly funded specialist colleges and two relatively small private universities, which receive no government funds.[6]

In 1992 publicly funded institutions of higher education enrolled nearly 560,000 students, of whom about 10 percent were engaged in master's or doctoral studies, while almost 38 percent were commencing undergraduate studies.[7] Of the latter, 39 percent had gained entry after their final year of secondary school in 1991. More than 60 percent of the age cohort completing secondary school (year 12) proceeded on to higher education.[8] Course completions increased by 14 percent in 1991 and by a further 10 percent in 1992 to a total of 120,583.[9] Student numbers in higher education increased by 64 percent in the preceding decade, from 341,309 in 1982 to 559,365 in 1992. While this trend reflects government policy, it has also occurred in the context of economic recession with concomitant high youth unemployment levels. This increase brought the national participation rate of the seventeen- to sixty-four-year-old population from 4 percent in 1982 to 5 percent in 1991, with the largest increase occurring from 1988 onward.[10] The composition of the student body in 1991 appears in table 2.1.

Broadly, Australian higher education falls into three categories: graduate (including graduate diplomas, master's, and doctorates), undergraduate (bachelor's and "other"), and nonaward (e.g., continuing and professional education). The number of students enrolled in bachelor's degree programs in 1992 was 413,321, while a further 35,212 were enrolled in the "other" undergraduate category, comprised of diplomas, associate diplomas, and other award courses. The graduate category is further subdivided into a number of levels of award, and of the 103,455 students studying beyond the bachelor's level in 1992, 24 percent were undertaking postgraduate studies (largely Master's by research and Ph.D.s), with a further 28 percent engaged in coursework higher degrees. Of the "other postgraduate" category, the bulk of the students were engaged in graduate diplomas and the like, for which a bachelor's degree is a prerequisite.

In 1992, females accounted for 53 percent of higher education enrollments, as against 46 percent a decade earlier. However, the distribution of students by sex varies with age: in the under-twenty age group, 57 percent of students were female compared with 51 percent in 1982, while in the twenty-to-twenty-nine age group, 50 percent of students were female, compared to 42 percent a decade earlier.[11] Women account for a smaller share of postgraduate enrollments than of

Table 2.1

COMPOSITION OF THE STUDENT BODY, 1991

				TOTAL	
	FULL-TIME	PART-TIME	EXTERNAL	NUMBER OF STUDENTS	PERCENTAGE
All students	339,204	159,316	60,845	559,365	100
Female	181,029	83,449	34,334	298,812	53
Male	158,175	75,867	26,511	260,553	47

SOURCE: Department of Employment, Education and Training, *Selected Higher Education Statistics, 1992* (Canberra: Australian Government Publishing Service, 1993).

undergraduate enrollments, despite overall female higher-degree enrollments having trebled in the preceding decade. Furthermore, women tend to be more concentrated at lower levels of postgraduate education than are men.

Following World War II, a confluence of factors led to the establishment of a number of new universities. The return of thousands of ex-military personnel brought rapid expansion and a change in the student profile of the established universities. The postwar baby boom precipitated a bulge in secondary education, which, together with the heightened educational expectations that went with economic prosperity, eventually led to a massive and largely unanticipated growth in the higher education sector. Enrollments in universities more than doubled, from 14,236 in 1939 to 30,630 in 1950.[12]

The expansion was initially financed chiefly by state governments, but progressively the Commonwealth government assumed greater responsibility. In 1957 it was recommended that the Commonwealth government should make a contribution to the capital costs of universities in addition to allocating funds for recurrent costs.[13] With the establishment and rapid growth of new institutions of higher learning and the postwar explosion of the university student and staff populations, the traditional system of quality control began to falter. Academic staff were being recruited from many countries, together with former school teachers and recent graduates. Staffing became a major vehicle for social mobility, and new recruits, often from nontraditional socioeconomic backgrounds, brought with them different political and educational attitudes. The following analysis of the situation in Western Europe also largely characterizes the shift that took place in Australia:

> The rising tide of new students heightened tensions in two ways: it increased the teaching load borne by non-professorial staff . . . and it unbalanced the "ecology of academia" by the rapid growth in that same staff, brought in to teach the ever-rising influx of students. If chairholders still wielded power and influence, expansion in the lower ranks placed a severe strain on their patronage networks. And, no less important in molding the expectations of younger academics, non-professorial positions expanded far faster than the professorial posts to which many had aspired. Expansion also profoundly changed non-professorial posts. . . . When the ecological balance was upset . . . a new sub-class began to assume a permanent status and the traditional process of socialization into academia became strained.[14]

During the early 1950s, a significant and increasing number of bright young (largely male) graduates from Australian universities looked toward North America rather than the United Kingdom for postgraduate opportunities. Many were assisted by the Fullbright program that began to shift academic focus from the United Kingdom to the United States and brought with it a consciousness that there were "other ways" of doing things. Moreover, during the period of student activism in the late 1960s, significant numbers of staff allied themselves with radical causes, bringing pressure on their universities to become more democratic and egalitarian in outlook, and to make their offerings more relevant and accessible.

In a major development, the Commonwealth abolished all tuition fees and took over total responsibility for higher education funding in 1974, by which time the seven established capital city universities had become nineteen, nearly all urban. A binary system—of CAEs (colleges of advanced education) and universities—was established in 1964.[15] CAE student numbers increased by 242 percent from 1968 to 1978 and for universities by 59 percent. During the 1980s, Australia and Britain (which had also adopted a binary policy of higher education in the mid-1960s) were the only countries in the world to educate the majority of their postsecondary students in nonuniversity institutions.[16]

During the early 1970s, the Commonwealth government initiated a consolidation, after which there remained nineteen universities, a few of which had amalgamated with contiguously located teachers colleges, and more than seventy CAEs. A decade later, again under severe economic constraint, the Commonwealth once more reduced the number of small CAEs, which by 1983 had dropped to forty-seven. Although the decade from 1977 to 1987 saw a 32 percent growth in higher education enrollments, from 298,000 to 394,000, real operating funds increased by only 11 percent. The next wave of major structural reform occurred in the late 1980s, when the Commonwealth government again embarked on a program of institutional amalgamations. On this occasion many metropolitan universities amalgamated with colleges. Some were structured in such a way that they could be dismantled, but the topography of higher education was nonetheless substantively transformed.[17] Of the sixty-four Commonwealth-funded institutions extant in 1987, only thirty-six remained in 1991, almost all styled as "universities." The preexisting heterogeneity in the system was now more generic.

All universities in the Unified National System are nominally autonomous—that is, each exists under a state act of Parliament or other legislative instrument that broadly specifies the purposes, structure, governance arrangements, and major forms of accountability. While all education in Australia remains nominally a state constitutional responsibility, in practice the authority over universities has been yielded to the federal political arena and bureaucracy in exchange for Commonwealth funding of the higher education system. Universities typically operate under governing councils, but in practice, day-to-day management and, increasingly, major policy matters including negotiations with the Commonwealth on institutional profile (student load and composition, funding levels, and the meeting of, for example, equity targets), and industrial relations are in the hands of the vice-chancellor.

Changes to decision making on funding have seen independent commissions gradually yielding to increasingly politicized bodies, culminating in the establishment of the National Board of Employment Education and Training in 1988. While this board and its constituent councils, including the Higher Education Council, have a measure of technical independence in some advisory matters, major decisions are now strongly influenced by an underresourced and understaffed bureaucracy, the Department of Employment Education and Training (DEET). Rising dissatisfaction is apparent among unions and management due to the perception of high levels of government interference in internal decisions and heavy annual statistical reporting requirements imposed upon universities.

Commonwealth funding for universities is provided against an agreed institutional profile on a rolling triennium basis. Recent moves to a national funding model have introduced more uniformity into the system.[18] In addition, the model is now being applied somewhat uncritically by a number of institutions for the purpose of internal funding allocation. Commonwealth research funding is provided competitively through agencies such as the Australian Research Council and the National Health and Medical Research Council. Discretionary grants, often "clawed back" from operating funds, are increasingly used by the Commonwealth to stimulate or reward the meeting of policy objectives such as equity targets,[19] the demonstration of quality in performance on various criteria,[20] the stimulation of improved or innovative teaching,[21] or staff development.[22] Currently, most universities are experiencing financial strain, and in an era of economic stringency and marginal funding, many are seeking to lessen their dependence upon federal funding by seeking funds from students, business, and industry. One or two universities now gain almost 50 percent of their funds outside DEET.

The academic profession in Australia has been included in a centralized wage-fixing system covering both state and federal workers. Along with some 95 percent of Australian workers, academics are thus subject to salary awards. Industrial awards, legally binding documents that specify salaries and conditions, are a result of protracted negotiations, usually at the national level, on particular issues between unions and management, occasionally accompanied by industrial action. If the parties cannot resolve their differences satisfactorily, the dispute is taken to an industrial court, where both parties present their case, which is then usually arbitrated and ratified as an industrial award, which has the force of law.

Academic staff are represented by unions, of which the National Tertiary Education Union is by far the largest, with some twenty-three thousand members, including a modest number of nonacademic staff. The union claims as members almost 50 percent of academic staff at Australian universities. As employers, universities are represented by the Australian Higher Education Industrial Association. The federal government has often intervened directly in the process of negotiation and arbitration, and it carries considerable weight.

This situation has begun to change, and a system of enterprise bargaining is evolving in which workers, largely represented by their unions, bargain directly with management. Negotiations over wages and conditions in Australian universities will be conducted increasingly in this way, with some aspects of current industrial awards remaining in place, thus limiting the scope of negotiations. The object of the enterprise bargaining system is to tie productivity gains to improved salaries and conditions.

Some senior academics, and others in areas of short supply, are now able to negotiate individual contracts, which sometimes include significant salary loadings beyond the federally agreed-upon award. The majority of academics, however, work within a five-band minimum-rates salary range. Until recently, these levels were styled tutor, lecturer, senior lecturer, associate professor/reader, and professor, reflecting the British origin of the nomenclature, which varied slightly across the binary system. Tutors often taught repeat classes of groups of ten to twenty undergraduates, but their other responsibilities, especially lecturing and course design, were limited. Expectations of research output by tutors were not always high, although many tutors were active researchers. Other university academic grades performed the full range of teaching and research functions, whereas most college staff (prior to the recent round of amalgamations) were not expected to engage in research.

The nomenclature has now changed to some extent, although the basic pattern has altered little. The academic levels have been restyled as levels A to E for salary purposes, with level A (now often called associate lecturer) being the base. Salaries for level A staff in 1992 ranged from $A28,700 to $A38,950; for level B from $A41,000 to $A48,688; level C from $A50,225 to $A57,913; level D from $A60,475 to $A66,625, and level E $A77,900.[23] The proportion of total staff numbers at each level is indicated in table 2.2. Clearly, salary levels alone do not indicate relative purchasing power internationally, and they give no clue as to the relative status of the academic profession within Australia. For the purposes of this chapter, the former nomenclature, which is more widely recognized, is adopted.

A DEMOGRAPHIC PROFILE

In the decade 1982–91, the total number of full-time equivalent academic staff increased by 36 percent, from 23,705 to 32,641. This growth was outstripped by the 57 percent increase in student numbers over the same period, leading to a decline in overall staff: student ratios of some 24 percent, from 1:11 in 1982 to 1:15 in 1992, a decline variously perceived to be a measure of increased efficiency or productivity, or of increased strain upon academic staff.[24] Survey data reveal significant perceptions of change among academic staff.

Tenure

Although the new federal Industrial Relations Reform Act now supposedly prevents termination of employment at age sixty-five, a declining majority of academic staff have continuity of employment, owing to the practice introduced by institutions of replacing retiring tenured staff with contract personnel and servicing increasing enrollments through contract appointments. By 1991, 61 percent of academic staff had tenure, compared with 81 percent a decade earlier. The decrease was particularly notable at

Table 2.2

ACADEMIC STAFF, BY LEVEL, 1991 (PERCENTAGES)

Above level C (reader/associate professor and professor)	16
Level C (senior lecturer)	22
Level B (lecturer)	39
Level A (associate lecturer)	23

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Australia).

the lecturer level, where the proportion of tenured staff had dropped from 80 percent in 1982 to 57 percent in 1991.[25] Tenured faculty across the system continue to be dominated by males.

Qualifications

In the past decade the proportion of academics with higher degrees in the Australian system has substantially increased. However, at both the beginning and end of the decade, the proportion of academic staff holding doctoral qualifications from "pre–1988" universities was significantly greater than that from the former CAE sector: 67 percent of staff compared to 26 percent of staff from the former colleges.[26]

Qualification levels also vary by field of study. In 1991, science was the field in which the highest proportion (81 percent) were qualified at the doctoral level. Other science-related fields such as agriculture, mathematics/computing science, and engineering have a high proportion of academic staff holding doctorates, followed by the humanities and social sciences. Australian academics in professional fields such as health and law are less likely to have pursued studies to the Ph.D. level.[27]

The greater proportion of academics in Australian universities obtained their first and higher qualifications in Australia. This proportion is significantly higher for women and for former CAE staff. In 1992, 70 percent of the latter category held both graduate and undergraduate qualifications from Australian universities. Only 55 percent of academics from the pre–1988 universities had obtained both qualifications in Australia, and more than a quarter held both first and higher degrees from overseas institutions.[28] Newer universities tend to have smaller proportions of staff with their highest degrees from the institutions at which they teach, while the most common origins of overseas qualifications are the United Kingdom and United States.[29]

Sex

An imbalance in numbers of male and female faculty is a significant feature of the profession (figure 2.1), with a substantially higher number of men than women employed full time. Numbers of males and females are roughly equal only at the most junior levels of the profession, where limited-term contracts are far more numerous. Men are three times more likely to be tenured than women.[30]

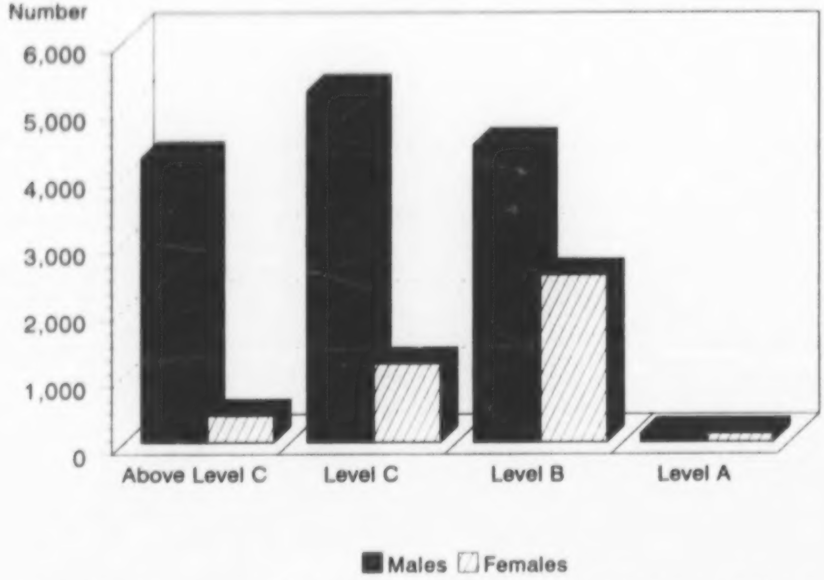
METHOD

The Sample of Institutions

While the sample selected for the international survey reveals strong similarities with the known characteristics of the population, providing information regarding methodology will ensure that procedures are made transparent and judgments can be made by the reader. Although size was defined in terms of the number of academic staff, the design has two stages, in which the primary sample units are universities, and the secondary sampling units are individual staff within the selected universities. Thus it can serve as both a sample of academic staff and a sample of institutions selected with a probability roughly proportional to staff size. One institution was selected within each of the "research" and "other" institutional groups for each 5 percent of the grand total of all eligible academics (with a minimum of three institutions).

Figure 2.1

NUMBER OF TENURED FACULTY, BY LEVEL AND SEX, 1991



SOURCE: Department of Employment, Education and Training, *National Report on Australia's Higher Education Sector* (Canberra: Australian Government Publishing Service, 1993), table 7.6.

Note: Includes both full-time and fractional full-time staff.

Eight Australian universities were identified as research-oriented institutions, in the terms of the international survey criteria. The criteria, which were necessarily somewhat arbitrarily applied to distinguish "research" from "other" institutions in the Australian sample, were a combination of competitive research grant earnings (total); competitive research grant earnings (per equivalent full-time staff number); and research higher degree enrollment.[31] These institutions contained 40 percent of all eligible academic staff. The eight institutions selected are referred to throughout as the "research" universities. This nomenclature is for operational purposes only and says nothing about the research stature of the other twenty-seven institutions, many of which are acknowledged for their achievements in research.

The research directors agreed that at least one major provincial distance education provider should be ensured of inclusion in the sample (Deakin University or the University of New England), with the other being returned to the remaining draw, since each is also a generalist institution. The remaining institutions in their current amalgamated configurations were listed by academic staff size, with the list divided into thirds. The institutions in the lower third appeared in the draw once; those in the middle appeared twice; and those in the top third appeared three times. Twelve institutions (i.e., one institution per 5 percent of the aggregate academic staff population represented by staff in those institutions) were drawn at random from this list. These institutions are referred to throughout as the "other" group.

Academic Staff Sample

As indicated above, the institutional types (research and "other") are represented in the staff sample in proportion to their systemic size. Thus, approximately 40 percent of the sample was drawn from the eight research universities and 60 percent from the twelve "other" universities. While the ideal sampling approach would have been to prepare a master list, stratified as required, of all eligible academics for each category of institution and to choose at random from that list, a more pragmatic approach was required. With an initial planned thirty-five hundred academics to be targeted, approximately fourteen hundred were drawn from the research universities and twenty-one hundred from the "other" group, and stratified on four dimensions in each institution: full-time and fractional full-time (defined as staff working any proportion less than full-time, but not including casual and sessional); and within each of those by level (rank) and faculty (providing a broad surrogate for discipline groupings).

Response Rate

With only one major follow-up possible, the responses, after the exclusion of a number of blank returns, numbered 1,420, representing 40 percent of the total target group, which does not compare unfavorably with the response levels in other Australian surveys of academic staff and other nations surveyed.[32] The utility of the sample is enhanced by the close match of its broad profile with the profile of the known population by type of institution, rank, discipline, gender, and age, and no systematic nonresponse bias would be anticipated, given those dimensions. Nonresponse bias on other dimensions or at the microlevel cannot be known, and the results must be interpreted with caution.

FINDINGS

A range of survey results is summarized below, including empirical characteristics of academic staff (parental occupation, earnings, gender, etc.) and value perceptions (perceptions of management, change, student ability, etc.). Major findings only are presented below, and readers desirous of further details should refer to the fuller study.[33] Where discrepancies exist between survey findings and other data, where questions have been framed in different ways, or where complementary data are available, this has been pointed out. Other research literature is alluded to where appropriate.

Perceptions of Academic Life

As the preceding description of the waves of reform in Australian higher education illustrates, there has been major change in the configuration of universities, particularly since the abolition of the so-called "binary divide" in 1987. The resultant amalgamations, which brought many former colleges of advanced education into established universities, were often characterized by some hostility on both sides. Only 9 percent of respondents from the research universities group indicate a perception that their academic life is "better now" as a result of the changes, as against 13 percent from the "other" group, at least some of whom would have been pleased to have been brought into the university sector. The telling response, however, is that 51 percent of research university respondents and 49 percent of "other" respondents believe that academic life is "worse now." Almost 20 percent provide a "not applicable" response, implying that they may not have been in the higher education sector prior to the reforms. Disregarding a fairly constant "about the same" response rate, the disillusionment appears to be spread across all ranks in both research and "other" groups of institutions.

Perceptions of worsening quality did not extend to assessment of students, however. Nor did concerns about the declining quality of academic life lead to a view that universities should be more selective in their intake.

External Earnings

The national salary structure for the Australian academic profession is explained above. However, a substantial proportion of survey respondents state that they receive income from sources other than their academic institution. Some 55 percent indicate that they receive payment from other academic endeavors, while 62 percent report receiving income from nonacademic work (private practice, consultancy, etc.). Of the former group, 41 percent are from the research group and 59 percent are from "other" universities. Across both university types, 75 percent of respondents indicate that these moneys constituted only 1 to 10 percent of their total earned income. Only a small proportion of these are at the tutor/senior tutor level (12 percent), the majority being lecturers (37 percent) and senior lecturers (27 percent). Higher academic ranks show a gradual decrease in the proportion of those earning income from other academic work with only 14 percent of readers/associate professors and 11 percent of professors reporting such earnings.

Some departments are more likely to have staff earning income from other academic work than are others. Of academics reporting they receive such external income, 15 percent are from social science departments, 12 percent from the humanities, 11 percent from education, 10 percent each from the physical sciences and engineering/computer sciences, and 9 percent each from biological sciences and business/administration. Relatively few respondents are from other departments.

Of the 62 percent of respondents who say they receive income from nonacademic work, 40 percent are at research universities and 60 percent are at "other" universities. Again, the majority of these staff are lecturers (39 percent) and senior lecturers (27 percent), with smaller proportions being tutors/senior tutors (12 percent), readers (13 percent), and professors (9 percent). Proportions of respondents according to department were similar to that described above: 16 percent come from social science departments, 11 percent from departments in the humanities, education, and engineering/computer sciences, 10 percent from the physical sciences, 9 percent from business/administration, and 8 percent from the biological sciences.

Job Satisfaction

As in the United Kingdom, small to medium departments often only contain one full professor, or at most two. Conventionally, these individuals have had twin roles as academic leaders of their departments and as administrative heads, or chairs. This task has become more difficult in recent years, as administrative demands upon universities from the federal government have increased while at the same time internal moves toward financial and administrative devolution have generated a greater demand for information, administration, and management. The massive expansion of student enrollments, accomplished without a commensurate increase in funding, has also meant that administering the rapidly growing departments is made more difficult and potentially stressful. It is for these reasons, perhaps, that appointment or promotion to the rank of professor appears no longer to be the ultimate aspiration for many staff.

Levels of job satisfaction of full-time academic staff in relation to changes was examined. A series of variables selected as likely indicators of the extent to which staff are satisfied with different aspects of their jobs (teaching, professional relationships, job security, promotion prospects, academic freedom, management, etc.) was entered into a factor analysis. One job satisfaction factor was found that accounted for 41 percent of the variance, and with an alpha of 0.75. This factor was entered as a dependent variable in a number of multivariate analyses of variance.

No significant difference in job satisfaction was found between female and male academic staff or between those working at research or "other" universities. However, the mean level of job satisfaction correlated with age, rank, and income, with the lowest rank (tutors/associate lecturers, 64 percent of whom are female) indicating less satisfaction with their jobs in general than their highest-ranking professorial-level counterparts.

Age

A trend toward an aging academic workforce has become apparent in Australia in recent years. Although the system is now much larger and comprehends a more heterogeneous student intake than a decade ago, it is nonetheless still the case that the large majority of academics are males in their forties and fifties. Most of these staff gained their first appointments when the number of academic staff in universities doubled between 1965 and 1975.

The average age of surveyed faculty in Australian universities was forty-five years. In years to come, it is possible that the age structure will become increasingly skewed. Although a cohort of academic staff will reach sixty-five before the turn of the century, legislation proscribing age discrimination in some states, and now at the federal level, may encourage some staff to seek to continue in employment beyond the traditional retirement age. Academics are increasingly being encouraged to take early retirement, however, and the number of Ph.D. candidates is also now increasing, thus creating a potential replacement pool.

Sex

Some interrogations of the survey data revealed distinct patterns of employment based on sex, while others were less clear. For the purposes of comparison, disciplines were clustered into groups. Thus science, mathematics, and computing sciences were treated as one disciplinary cluster. The other groups were social sciences; humanities and performing arts; education; engineering and architecture; health (including medicine); and business, law, and administration.

Some differences were discernible in these very broad classifications. A notable absence of women at more senior age levels and ranks was most evident in the sciences, which in some disciplines had no women staff at all over the age of sixty. This was also true of business/law and engineering/architecture but less evident in education and the social sciences/humanities. The general lack of older women in universities, however, may reasonably be expected to change over time as a result of changing and arguably more liberal gender regimes and changing gender patterns at lower levels, although the extent of such change is not predictable.

Disparities according to sex were also evident by rank. This was somewhat more evident at the senior levels and in the "other" group of universities, which also tended to have fewer staff at higher levels. Thus it can be postulated that for women, placement at a university in the "other" group may constitute a disadvantage in addition to gender, although the simple fact of the availability of more promotional positions at research institutions does not necessarily imply that these positions are gained equally by women.

At the two most senior ranks surveyed (levels D and E, or reader/associate professor and professor) 8 percent of female respondents were at research universities compared with 33 percent of male respondents, whereas the corresponding figures for the "other" group of institutions are 7 and 24 percent, respectively. Here again the relative absence of senior positions within the latter category of institution must be taken into account when assessing these findings, since the ratio of men to women in each category is around 4:1 at these levels. Gender disparities at the lowest levels (levels A and B, or tutor/associate lecturer and lecturer) were less pronounced at the "other" universities, with the male:female ratio being 1:1.7, compared with an equivalent ratio of 1:2.3 at research universities.

When discipline groupings are compared, science-related disciplines (both applied and pure) seem to demonstrate strong bias against females, with several areas (mathematics/statistics, and agriculture/forestry, for example) having no female respondents at the three most senior levels. The engineering-based grouping (which included architecture/urban planning) has only one female respondent at level B (lecturer) and none above this level. Within the health area, which included nursing, as well as dentistry and medicine, a diverse pattern is revealed, whereby health science departments (with slightly more female than male respondents) have twice as high a proportion of female academics as males at the lecturer level, with almost four times the proportion of males at the two top levels, relative to the proportion of their female colleagues. In dentistry and medicine, by contrast, women form less than 20 percent of the survey respondents, and appear to be severely underrepresented at the two top ranks (levels D and E). No analysis has been carried out to discern any difference, which might be expected, between the clinical and preclinical areas.

While differentials based on sex are also profound in the social science/humanities area, some 7 to 10 percent of female respondents have achieved either level D or E. However, some 70 percent of female respondents are from the lowest two ranks in social science/humanities-based departments. In education, where women and men respond about equally, around 25 percent of female academics are at level C or higher, compared with 55 percent of male academics.

Functions of Academic Staff: Teaching and Research

In Australia the academic is generally seen as a species of public official, albeit of a particular bent. This perception reflects the fact that the higher education system is largely publicly funded and administered. Traditionally, university academic activities emphasize the importance of research and scholarship. The merging of the somewhat different cultures of colleges and universities and of associated distinctions in career expectations has added to the heterogeneity surrounding research output and expectations. Staff of the former CAEs were not generally expected to undertake research, and although some CAE staff did establish substantial research profiles, research was often seen as something "extra." No systematic moves have yet been made to formally introduce a category of "teaching only" positions, as has occurred in the United Kingdom, although current measures to tie institutional funding increasingly to research productivity may achieve something of the same effect.

We have already noted the statistical significance of the categories of research and "other" universities employed throughout the international survey. Such differences between subpopulations of the Australian survey probably reflect to a substantial extent the historical differences in institutional missions within the Australian higher education system. Whereas the former generally insisted on a research role for their academic staff, the latter were traditionally defined as teaching institutions, often with a vocational orientation and wider reach in the community.

Both the survey data and official statistics point to significant differences in the proportion of academic staff with doctorates in the two categories. The survey data, which examined institutions as a whole, indicate that 61 percent of academic staff in research universities hold doctoral degrees, compared with 41 percent in the "other" group.[34] Thus, one might reasonably expect more research university staff to feel better prepared to fulfill a research role, and that higher levels of dissatisfaction would be expressed by staff in "other" institutions. Different levels of dissatisfaction between the two types of institutions may also reflect perceptions of higher workloads and/or lower levels of support for research, given that the eight major research institutions capture a relatively large proportion of available research funds. Survey data broadly confirmed these patterns of difference, with rates of dissatisfaction being twice as high among the latter category of staff relative to their peers in research universities.

Some 22 percent of staff from the "other" institutions assess their preparation for undertaking the research role as poor, compared to 11 percent of staff from institutions designated as research universities. On the positive side, some 62 percent of research-based respondents assess their research training as excellent or good, relative to 44 percent of staff at "other" establishments.

In terms of academics' primary orientation, the survey reveals a declining preference for teaching and an increasing preference for research as respondents attain higher academic ranks. Across all institutions, 56 percent of level A and level B staff have a primary interest in, or lean toward, teaching, compared to 48 percent at level C, 30 percent at level D and 26 percent at level E.

In relation to other teaching indices, 75 percent of respondents at research and 82 percent at "other" universities hold that student opinion should be used to evaluate the teaching effectiveness of academic staff, although 65 and 68 percent, respectively, believe that better ways are needed to evaluate teaching. Around 40 percent of academics believe that teaching is not taken seriously in deliberations for promotion (with a "neutral" group of around 20 percent), and more than 30 percent of respondents believe that teaching is not taken seriously as a criterion for appointment, either. Not surprisingly, there is a strong body of opinion at the research universities (52 percent of respondents) rejecting the notion that teaching effectiveness should be the primary criterion for promotion (with 26 percent agreeing that it should be), whereas at the "other" universities about 40 percent of respondents support the proposition and another 40 percent reject the proposition. Over the course of the past decade, the federal government has developed a range of mechanisms and guidelines that have powerfully influenced the nature and organization of higher education research. The guidelines have been centered on policies of increasing the relevance of higher education research and establishing research priorities; promoting competitive funding, selectivity, and improved accountability; and making funding more dependent upon research productivity. Federal government policy has endeavored to focus research, especially in science and technology, on the strategic economic and social service needs of the country. There has been some concern that this attempt to make higher education research and research training more responsive to short-term economic and social needs might force institutions to devote their resources to research that offers immediate returns, and/or to producing more, rather than better, research.

The survey data reveal an interesting and diverse profile on such research-related matters as productivity and support levels, including gender and rank. The question, "Are you currently engaged in any research projects?" receives an overwhelmingly positive response. With the exception of architecture and urban planning, where involvement in research is around 80 percent, most other disciplinary groupings report a rate of involvement in research projects of around or above 90 percent. Results in this area may have been artifacts of the way in which the disciplines were collapsed. It also should be noted that "research" was defined by the respondent.

Research productivity measures are, like others, self-reported: no effort has been made to confirm rates of production or the status of reported publication activities. The data reveal that Australians are comparable with academics of many other nations surveyed in terms of their research productivity. Within the Australian sample, differences are discernible according to discipline, rank, gender, and type of institution. Overall productivity shows means of 0.2 single-authored books, 0.2 edited books, 4.3 articles, and 1.2 research reports/monographs over a three-year period. The majority of academics, around 70 percent, indicate that they have presented a paper at a scholarly conference or published an article in an academic book or journal in the previous three years. Around 41 percent indicate they have written a research report or monograph and 32 percent a professional article for a newspaper or magazine. Substantially more academics based at research universities have published articles and presented papers, while slightly more have authored and edited academic books. The reverse is true for production of videos/films and artistic works, where more academics based at "other" universities have engaged in these activities over the previous three years than their colleagues at research-oriented institutions (table 2.3).

Different profiles of academic output are associated with particular disciplinary groupings (table 2.4). Applied sciences such as engineering rate lower in the production of academic books and newspaper articles, whereas output of research reports/monographs and papers is more

Table 2.3

RESEARCH PRODUCTIVITY IN THE LAST THREE YEARS, BY UNIVERSITY TYPE (PERCENTAGES)

	RESEARCH UNIVERSITY	"OTHER" UNIVERSITY	ALL FACULTY
Books authored	19	17	18
Books edited	15	12	13
Articles published	76	65	69
Research reports	41	40	41
Papers presented	77	72	74
Newspaper articles	29	33	32
Patents	2	2	2
Computer programs	7	6	7
Artistic works	5	7	6
Videos/films	7	10	8
Other	8	10	9

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Australia).

pronounced. Academics in the sciences reveal a similar profile of academic production, which may inter alia suggest the need to promote development of enhanced communication skills among science and technology academics. By contrast, scholars in the humanities show much higher rates of production of books, and a much lower rate of authorship of research reports/monographs. Other professional faculties exhibit diverse patterns. While the diversity of production is interesting in itself, one wonders how far and in what ways current methodologies being developed on campuses around Australia to "claw back" and reallocate core funding according to research productivity accurately reflect this diverse pattern of production.

Scrutiny of the data reveals a predictably positive correlation of productivity with rank. Whereas the average number of articles produced

Table 2.4

RESEARCH PRODUCTIVITY IN THE LAST THREE YEARS, BY ACADEMIC DEPARTMENT (PERCENTAGES)

	HUMANITIES	SOCIAL BEHAVIORAL SCIENCES	EDUCATION	SCIENCE	MATH/ COMPUTER SCIENCE	VISUAL PERFORMING ARTS	ENGINEERING	HEALTH SCIENCES	ADMINISTRATION/ BUSINESS/ ECONOMICS/LAW	BUILT ENVIRONMENT	AGRICULTURE/ RENEWABLE RESOURCES
Books authored	40	27	19	11	13	16	13	10	22	13	17
Books edited	30	17	15	13	7	14	8	10	9	11	15
Articles published	80	73	65	81	67	41	68	72	65	53	76
Research reports	32	42	44	44	34	34	52	44	28	50	49
Papers presented	82	81	77	77	70	50	84	76	65	68	73
Newspaper articles	41	39	39	27	11	41	29	30	32	29	51
Patents	0	0	1	4	0	0	7	2	1	0	7
Computer programs	4	1	5	8	21	0	22	2	4	8	2
Artistic works	10	3	6	1	4	77	0	2	1	16	2
Videos/films	10	13	16	4	3	9	6	16	2	5	10
Other	12	12	13	8	5	5	7	7	11	11	10

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Australia).

Table 2.5

RESEARCH PRODUCTIVITY IN THE LAST THREE YEARS, BY ACADEMIC RANK (PERCENTAGES)

	LEVEL A ASSOCIATE LECTURER	LEVEL B LECTURER	LEVEL C SENIOR LECTURER	LEVEL D READER/ ASSOCIATE PROFESSOR	LEVEL E PROFESSOR
Books authored	6	12	21	34	34
Books edited	3	8	12	25	40
Articles published	46	61	80	84	93
Research reports	26	36	46	52	52
Papers presented	48	70	83	88	90
Newspaper articles	15	28	38	40	45
Patents	1	2	1	5	2
Computer programs	8	6	7	7	4
Artistic works	4	8	6	4	4
Videos/films	6	8	9	11	7
Other	9	10	9	9	5

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Australia).

over a three-year period is just over 1.7 for the lowest level in the academic hierarchy (level A/associate lecturer), the rate of productivity rises steadily for the higher ranks, culminating in a rate of 9.9 for the highest rank (level E/professor). The pattern was similar for the percentage of staff who have engaged in research activities over the previous three years, with a steady increase in involvement in most aspects of research productivity corresponding with academic level (table 2.5). For almost all categories of staff, type of institution is also indicative of different productivity levels, other than for male lecturers (level B). Rates of productivity are significantly greater at research institutions, with the greatest differences evident at level E (professor), for both males and females.

Differences between males and females in research productivity are also noticeable (table 2.6). Overall, greater proportions of male academics indicate that they have engaged in various aspects of research activity over the previous three years. In particular, more males than females have presented papers, published articles, written research reports and newspaper articles, and authored and edited academic books over the same period. By contrast, slightly more female academics indicate that they have produced artistic works and contributed in other ways, although the percentages for both genders in these categories are low. Other than for readers (level D), all ranks show a higher rate of output of scholarly articles for male faculty than for females. These differences are usually within the range of 20 to 50 percent and tend to be greatest at either end of the academic hierarchy. Single-author book production rates are higher among males than females at all levels, although differences are less stark than for articles. Rates of production of edited volumes yield a more diverse pattern. Also, newspaper articles and artistic works are produced at a generally higher rate by women than by men.

The unequal distribution of female faculty across disciplines—their lower numbers in mathematics, the sciences, and engineering, for example—may also explain the relative absence of females who produce patents and computer programs. Unequal research productivity may also relate to gender differences in subjects taken at school.

Generally, lower rates of academic productivity for women academics probably relate to the greater difficulties they still face, some of which are alluded to above. Certainly, far more female academics at the junior levels report that their teaching responsibilities strongly inhibit their academic research than do their male peers, for whom such an association is more important at the middle and senior ranks. Equally, far more junior women (68 percent of level A and B) report the availability of research funding to be a strong positive influence upon their research than do their male peers (32 percent of equivalent ranks), for whom such support is more crucial at the middle and higher levels. This may well suggest that support for women at junior levels is more important as a means of getting started on an academic career than it is for men.

In regard to research earnings, more academics at "other" universities

Table 2.6

RESEARCH PRODUCTIVITY IN THE LAST THREE YEARS, BY SEX (PERCENTAGES)

	FEMALE	MALE	ALL FACULTY
Books authored	12	21	18
Books edited	9	15	13
Articles published	61	74	69
Research reports	35	44	41
Papers presented	67	78	74
Newspaper articles	26	35	32
Patents	1	2	2
Computer programs	3	9	7
Artistic works	7	6	6
Videos/films	8	9	8
Other	11	8	9

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Australia).

(55 percent versus 36 percent) report receiving research grant moneys at the lower end of the financial scale (i.e., less than A$33,000 over the previous three years), whereas respondents at the research universities report a much greater level of financial support than their colleagues at "other" universities. For example, in the former group, 37 percent of respondents report three-year research funding of more than A$132,000, compared with 19 percent at "other" universities. The research universities, which largely have the more expensive faculties such as medicine, veterinary science, and the like, tend to do more high-cost research.

Rank also significantly correlates with research earnings. Substantially higher proportions of reader/associate professors report research income levels at the mid-to-higher ranges (between A$66,000 and A$329,000) than do lecturers. This pattern operates at both research and "other" institutions, while differences are also found between ranks at the two institutional types. In each case, lecturers and readers at "other" institutions report lower incidences of research income at the range indicated above. Differences are starker at the lecturer level, but caution must be exercised when drawing inferences at the reader level, since the numbers of females at this level (18 out of a total of 141) were so small as to make the findings inconclusive.

Whereas some 50 percent of female academic staff at research universities report a total research grant income for the previous three years of less than A$33,000, less than 32 percent of males report income below this level. A similar pattern of gender differences is found at "other" universities, while more males and females at "other" institutions tend to report lower categories of research income than their peers at research institutions.

Some 64 percent of respondents report that they received funds from their academic institution, compared to 46 percent of U.S. academics, although this varies across disciplines. More than 70 percent of researchers in built environment, the humanities, administration/business/economics/law, education, and social/behavioral science receive their funding from their institution, compared with less than half of those in the visual/performing arts. Sixty-eight percent of respondents with research funding indicate that it comes from government bodies such as the Australian Research Council, with a greater proportion of these academics coming from research than from "other" universities (78 compared to 61 percent). Academics in science and agriculture/renewable resources tend to be the main recipients of research funding gained from national research funding bodies, with 83 percent and 78 percent, respectively, receiving funds. This can be contrasted to academics in administration/business/economics/law, built environment, and the humanities, of whom at least 40 percent do not receive their funding from a government body.

Few academics (19 percent) state that they receive their funding for research from business firms, probably reflecting the traditional reluctance of Australian industry to invest in research and development. This was, however, disproportionate across disciplines: 44 percent of academics in engineering/processing and around 34 percent of those in agriculture/renewable resources and built environment indicate that their funds come from business. Very few academics report receiving funds from private foundations (11 percent), with the largest proportion of academics receiving such funds coming from the health sciences field (30 percent). This can be compared to U.S. data, according to which an overall 33 percent of academics say that their funding comes from private foundations.

Seventy-six percent of academics engaged in research are working independently on at least one project. This is particularly so for academics in the visual/performing arts, of whom 97 percent are involved in independent projects. The majority of respondents (76 percent) indicate that they have collaborators on at least one of their research projects. More than 80 percent of academics in science, engineering/processing, and health sciences say that they are working collaboratively in contrast to little more than 50 percent in the humanities and the visual/performing arts who indicate that they are working alone. Academics with a research leaning are more likely to have collaborators than those who lean toward teaching.

Some 31 percent of respondents report feeling under pressure to do more research than they would like, while 46 percent did not. More academics at research universities disagree with this statement. Academics reporting most pressure to do more research than they wished are in education and built environment, while greater numbers of teaching-oriented academics (43 percent) feel under pressure than those who were more research-oriented (17 percent).

Respondents indicate they work in a climate of strong research activity, with 83 percent agreeing that regular research is expected in their academic positions. More academics at research in contrast to "other" universities indicate that research activity is expected (91 percent as opposed to 79 percent).

Benefits

Australian universities typically offer staff various developmental opportunities, including grants for travel both within Australia and overseas for conferences or research leave (still commonly referred to as the "sabbatical"). At research universities 37 percent of all respondents describe the benefits available to them in terms of paid outside or special studies programs (sabbaticals) as good or excellent, compared with 27 percent at "other" universities. In the latter group, about 65 percent overall saw the provision as fair or poor, and 9 percent believe such programs to be unavailable to them. When reviewed by rank, it is apparent that as academics rise through the profession in either type of university, their perceptions—and probably the reality—of the opportunities available to them increase. On the other hand, whereas 41 percent of males at research universities believe sabbatical or special studies program benefits available to them to be good or better, only 27 percent of their female colleagues are in agreement. At the "other" group of universities, no significant overall difference between the perceptions of men and women as to research leave opportunities available to them is reported. Regardless of type of university, males and females at academic levels A to C rate their opportunities for sabbaticals as about the same, with a gradual increase in positive ratings (good or excellent) as they move up the academic ranks. However, sex differences are apparent at the top two levels. Twenty-seven percent of females at level D rate their opportunities for sabbaticals as good, compared to 40 percent of males at this level. Female professors (*N*=15) are also less likely to give positive ratings than are their male colleagues (*N*=97), at 40 and 49 percent, respectively.

Respondents were also asked to rate the availability of conference funds. Overall, more than 82 percent of academics rate these as fair, poor, or not available. On this dimension also, rank improves outlook slightly, although even at the professorial level, about 80 percent at both types of institution see travel funds as inadequate. It is also likely, of course, that negative responses are influenced by increased expectation of support at the higher levels of the academic profession. There is little apparent difference between the perceptions of men and women on this variable.

Academics tend to view retirement arrangements available to them positively, with just under half (48 percent) rating these as good or excellent but only 16 percent rating them as poor or not available. There is no discernible difference between research and "other" universities on this factor. Some gender differences are apparent, with more male academics (50 percent) rating these arrangements as good or excellent as opposed to 38 percent of females. This difference may reflect gender employment patterns, whereby female academics are currently more confined to the lower ranks of academic hierarchy than their male peers. Satisfaction with retirement arrangements is positively related to academic rank, with only 29 percent of tutors/associate lecturers rating these as good or excellent compared to 52 percent of (level E) professors.

As indicated at the outset, the survey wished to measure perceptions of change across a range of variables. Thus, academics were asked to rate the general level of benefits available to them now compared with five years ago. Only 8 percent indicate that benefits are better now, with 66 percent indicating that benefits are about the same or worse now than five years ago. About one in four respondents indicate that they do not know if benefits are currently better or worse, perhaps indicating that they were not working at an academic institution five years ago. Thirty-nine percent of females endorse this category compared with 19 percent of males.

Governance and Management of Universities

Governance and management in Australian higher education have been in rapid transition during the last decade. The growth of a strong mood of accountability and public awareness of the costs of higher education together with the political dilemma posed by the necessity of providing more and better services, including higher education, at a time of resistance to higher taxes has led to significant external pressure on universities. Universities are thus caught between external (and some internal) pressures for more managerialism, demonstrable performance improvements, higher productivity, more "relevant" offerings, and more applied research, and the traditional pull of collegial decision making, individual academic freedom, and institutional autonomy. It goes almost without saying that, given the research literature on responses to organizational change and human behavior in organizations, the majority of academic staff will view such change as detrimental to the purposes of the organization. It is thus not surprising that, in general, the responses to questions about decision-making structures and roles in decision making were critical of what is typically described as a shift toward the "corporate" model of university management.

For the selection of key administrators, 47 percent of respondents believe that the vice-chancellor is the key influence, with 18 percent putting the selection down to a central committee. Less than 4 percent take the view that deans or heads of department have any say at all in the selection of key administrators. When it comes to choosing new academic staff, however, most respondents (89 percent) see the function shared between the dean and associated staff, committees of the school/faculty, and the head of department.

Thirty-one percent of academic staff believe that central committees make promotion and tenure decisions, and 19 percent believe that the dean "actually" makes the decisions regarding promotion and tenure, whereas 31 and 20 percent, respectively, believe the decisions to be made in central committees or faculty/school committees. The different perspectives may reflect differences in practice between institutions (not analyzed), but, given the collegial place of promotion and tenure procedures in most institutions in Australia, the opinions of nearly 30 percent of staff that the dean and head of department between them actually make promotion and tenure decisions more likely reflects a view about where the power in promotion and tenure decision actually lies.

Interestingly, 58 percent of respondents attribute to the vice-chancellor the key decision-making role in institutional strategic planning. A further 15 percent of staff see this task being carried out by a central committee. While this response clearly does not constitute an affirmation by academic staff as to what the role of a vice-chancellor should be, it is clear that the thinking in most universities is consistent with the view that vice-chancellors set medium and long-term strategic institutional directions.

The determination of budget priorities at the institutional level is believed by 47 percent of respondents to be made by the vice-chancellor, whereas 23 percent believe that central committees actually make the decisions. Because of the framing of the question—"As a general rule, where are the following decisions actually made?"—it is likely that some respondents are indicating what they understand to be the formal decision-making structure; however, the researchers believe that respondents are generally astute in distinguishing the de facto decision makers from the formal structural elements. In most institutions in Australia in the 1990s, the vice-chancellor would have the major say in discretionary areas of the budget and in setting priority directions, although it is notable that in some institutions committees of deans and others have substantial control over central resource allocation decisions.

Within the faculty, over 47 percent of staff believe that the dean and his or her associated staff make decisions over budget priorities. Twenty-one percent think the decisions are made by a faculty/school committee, with 12 percent believing they are made by heads of department. It should be noted that decisions being made in a faculty/school committee or by heads of department may not in all cases be mutually exclusive since many faculty/school committees would be made up of heads of department. Three percent of respondents believe that the vice-chancellor determines budget priorities at the faculty/school level. Interestingly, it appears that more than 46 percent of academic staff do not know how their institution sets student tuition fees; 29 percent view the task as being carried out by a central committee and 20 percent by the vice-chancellor.

The decision seen most clearly as a collective activity is the approval of new academic programs. Sixty-seven percent of faculty see this task as lying with either a central committee or a faculty/school committee. The setting of admission standards is seen as being more dispersed, with central and faculty/school committees playing the major role, according to 51 percent of respondents, but with the vice-chancellor (7 percent), deans (12 percent), and heads of department (6 percent) also playing a role. Respondents were asked how influential they were personally in helping to shape key academic policies. Most (more than 53 percent) see themselves as very or somewhat influential at the level of the department, with a further 26 percent seeing themselves as having little influence at this level. The reported level of influence declines rapidly at higher levels of decision making. At the faculty or school level, 28 percent of staff perceive themselves as being very or somewhat influential and 28 percent as being a little influential. At the institutional level, on the other hand, only 7 percent of staff perceive themselves as being very or somewhat influential, with a further 14 percent seeing themselves as a little influential. Seventy-five percent of academic staff see themselves as not at all influential at the institutional level, compared with 41 percent at the faculty/school level.

When respondents are asked to look at their own institution and indicate their responses to statements relating to management and decision-making processes, only 7 percent agree unequivocally that senior academic administrators are providing competent leadership. A further 21 percent are slightly positive, 26 percent are neutral, and 20 percent are somewhat negative, with 26 percent firmly disagreeing. Furthermore, more than 52 percent of academic staff believe that communication between the academic staff and the administration is poor, and 63 percent believe that the administration is often autocratic. Forty-eight percent of respondents agree that the lack of academic staff involvement in management and decision-making processes is a "real problem," but 19 percent disagree with this proposition, with a further 33 percent being clearly neutral. There is some sympathy for students having a stronger voice in management and decision-making processes, with 41 percent of academic staff tending to this view and 23 percent tending against it.

Internationalization

The internationalization of the academic profession is a phenomenon of growing importance in Australia, as in several other countries.[35] Over the years, several studies have investigated the extent to which foreign scholars work in Australian higher education, and recent work has shown that higher education is more internationalized than many other professions.[36] The present survey adds valuable new data, while confirming some earlier research findings. Further work has also been undertaken that has yielded some interesting comparative data on how trends in Australia relate to those overseas.[37] The international survey results confirm that Australia is one of the more internationalized higher education systems, with its academic staff possessing degrees from many parts of the globe. Using place of origin of one's highest earned degree as an index of internationalization, several queries of the data were attempted. As would be anticipated, Hong Kong and Israel rank highly on this measure, with Korea, Australia, and Chile in the next group and still far ahead of any other countries.

Clearly, "highest earned degree from another country" is not a measure of foreign citizenship among academic staff employed in individual systems of higher education, since the figures also include those nationals who have studied abroad. In addition, the figure would understate the number of foreign nationals working as academics in Australia (which now attracts significant numbers of higher degree students from many countries, particularly the Asia–Pacific region) who pursue their higher degree work in Australia, and in some cases may go on to a university post. Nonetheless, the measure is an oft-used index of internationalization.

Some 20 percent of academic staff in Australia have their highest degree from another country. The United Kingdom and the United States provided the bulk of internationally earned highest degrees among respondents, constituting 44 and 25 percent, respectively, of all internationally earned highest degrees. A further 10 percent came from Canada. Anderson's recent investigation, which also used location of highest earned degree as an index of internationalization, provides some scope for longitudinal comparison, in that its data were from 1987, whereas the data from the international survey were collected in 1993.[38] Anderson's measure was different, however, in that he compared the relative contribution of individual donor nations to his entire survey, while the international survey examined the contribution of individual donor nations relative to all foreign higher degrees held by respondents. Anderson showed that in 1987, 15.9 percent of Australian academics' highest degrees originated in the United Kingdom, and 14.6 percent from the United States.[39] No other country contributes anything like that proportion of academic staff, but this trend should periodically be monitored in the light of several factors: Australia's increasing integration in the Asian region, especially the increasing numbers of research students from this region at Australian universities; the lessening importance of strong traditional links between the United Kingdom and Australia (including in higher education), a result of both the introduction of higher fees for international students in the United Kingdom and the increasing incorporation of the United Kingdom into Europe and the European Union.

Baker et al., 1993, employ the alternative measure of birthplace, with some allowance for age of entry to Australia.[40] This index shows that in 1986, some 41 percent of academic recruits were born in the United Kingdom and Ireland, 22 percent in Asia, and 22 percent in North America. This, the authors argue, has changed over recent years, with Asia and North America gaining at the expense of recruits from the United Kingdom, Ireland, and New Zealand.

Findings from the international survey outline differences between categories of academic staff. When working conditions were scrutinized, for example, it was revealed that *peripatetic* staff (the term used to designate those with a foreign highest degree) in Australian universities were more likely to be full-time employees than were *indigenous* staff (the term adopted for respondents with a highest degree gained in Australia). (Baker et al. confirm that overseas staff are more likely to be full time, largely because, in their view, domestic recruits are often still engaged in part-time study.) Data from the international survey indicate that peripatetic staff are marginally more likely to be in continuous employment than their indigenous peers, the respective ratios of continuous to contract employment being 2.8:1 for the former group and 2.4:1 for the latter.

Of other characteristics that distinguish peripatetic academic staff from their indigenous peers, the international survey reveals a pattern largely in accord with other research: peripatetic staff tend to be male; primarily interested in research and more productive researchers; older; with more advanced degrees; and earning somewhat higher salaries. Differences in research productivity for peripatetic and indigenous populations, however, may be partly explained by the greater proportions of peripatetic faculty that the survey found at older universities, where the research culture and facilities are better established.

Gender disparities in Australian universities were found here too:

some 22 percent of female respondents fall into the peripatetic category, compared with 37 percent of males. While indigenous staff are more common than peripatetic at all levels, with ratios ranging from 1.15:1 (among male professors) to 53:1 (among female level A staff), for all ranks, women were far more likely to be indigenous than men, with ratios often being twice as high. For example, while the ratio for indigenous to peripatetic among female lecturers was 4.02:1, the equivalent ratio for male lecturers was 2.44:1. Among professors, the female ratio was 2.5:1, compared with the male ratio of 1.15:1. It is likely that female academics are less encouraged, or less able, to travel abroad for extended periods to study for a higher degree, which can be explained by the greater likelihood that they are employed at lower levels, more likely to be hindered by domestic role, and/or child rearing, or are financially dependent.

Differences according to rank are less clear, although there is a declining ratio of indigenous to peripatetic staff from junior to senior ranks. Junior staff (level A) display an aggregate (male and female) ratio of 4.1:1, which compares with an aggregate ratio of 1.82:1 for the most senior category (professor). It could be hypothesized that age is a factor, with older professors being more likely to have traveled to complete a higher degree (in more generous times) than younger level A staff. Equally, cost may be a factor with the most junior staff (level A) being least able to afford the costs of foreign study. Conventional practice for this group is to pursue a part-time higher degree at their own or a nearby university while engaged in academic teaching.

Survey data confirm that peripatetic staff are more senior than their indigenous peers. On other indexes of activity, staff designated peripatetic perform differently when measured against major dimensions of international activity such as attending international conferences, maintaining contacts with international scholars, and the like. Although, as noted earlier, Australia's distance from major centers of academic activity such as North America and Europe has been associated with a desire to maintain international contacts, the data reveal that peripatetic staff engage in international activities at a higher rate than do indigenous staff. Often the rates of participation are twice as high for peripatetic staff, although rates vary according to the specific activities analyzed. The rate of Australian participation in international professional societies by peripatetic staff, for example, is 0.7, which compares with the rate for indigenous staff of 0.5, while the rate for publication overseas varies similarly, from 0.6 for the former to 0.4 for the latter group. Given the preference in the "old" university sector for overseas-trained staff, alluded to above, differential performance probably corresponds to some degree to differences between "old" universities and former colleges.

Quality of Students

The responses of Australian faculty on the issue of the quality of students are fairly liberal relative to some other systems surveyed. Overall, respondents believe that 79 percent of young people in Australia are capable of completing secondary education. There is no significant difference between respondents from the research universities and "other" universities on this dimension. To the question, "What percentage of students (in Australia) who complete secondary education should be admitted to university education?" the mean response is 49 percent, with almost identical responses from research universities and "other" universities. There is no significant difference in responses between staff engaged chiefly in teaching and staff engaged chiefly in research. The overall majority of respondents (75 percent) also indicate that access to higher education should be available to all who meet the minimum entrance requirements. This seems to reflect the public view, expressed through the press and by some governments. There is increasing pressure on universities to accept greater numbers of "school leavers" into undergraduate programs at the expense of mature-age and graduate student numbers.

At research universities, 64 percent of academic staff rate the quality of students in their departments as excellent or good, whereas in the "other" category, 53 percent of staff rank their students as such (table 2.7). On the other hand, 31 percent of staff from research universities rate their students as fair, and 6 percent rate them as poor. This can be compared to staff from the "other" category, of whom 41 percent rate their students as fair while 7 percent rate them as poor. Departments in the visual

Table 2.7

FACULTY RATING OF THE QUALITY OF STUDENTS IN THEIR DEPARTMENT, BY UNIVERSITY TYPE (PERCENTAGES)

	EXCELLENT	GOOD	FAIR	POOR
All faculty	10	47	37	6
Research universities	13	51	31	6
"Other" universities	8	45	41	7

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Australia).

and performing arts stand out with 75 percent of staff rating the quality of students as excellent or good. In built environment and agriculture, just over 70 percent rate the quality of students as excellent or good. At the other extreme are mathematics and computer science (41 percent) and engineering (43 percent). About 62 percent of staff in the humanities rate their students as excellent or good.

Of staff teaching entirely at the postgraduate level, more than 77 percent place the students in their departments in the good to excellent category while of those teaching entirely undergraduates only 54 percent respond in the same way. Fifty-six percent of staff who identify themselves as having been employed in a university in 1987 rate the quality of their current students as excellent or good, as do 57 percent of their colleagues at former CAEs. Female staff are marginally more likely to rate the quality of students in their departments as excellent (11 percent) or good (49 percent) than male staff, at 9 percent and 46 percent respectively.

When viewed by rank, there are significant differences in the way in which staff perceive the quality of students. Fifty-nine percent of staff at level A (tutor) rate the quality of students as excellent or good, against 54 percent of lecturers and senior lecturers and 60 percent of associate professors/readers. Seventy percent of professors, on the other hand, rank their students as excellent or good.

About 56 percent of academic staff at research universities think that the quality of students currently enrolled in their departments is about the same as or better than it was five years earlier. A similar overall view is reflected by staff in universities of the "other" category, save that a larger proportion (26 percent as against 22 percent) believes that students are better now. Across the board, 77 percent of academics in the visual and performing arts rate students as about the same or better now than they were five years ago. The built environment and agricultural and renewable resources show around 68 percent on the same dimension. In administration, commerce, economics, and law, about 50 percent think students are about the same or better against 48 percent in mathematics and computing, 62 percent in education, and 64 percent in the humanities. Of staff who teach entirely in the postgraduate area, 77 percent believe that the quality of students is about the same as or better than it was five years earlier, whereas only 46 percent of staff teaching solely undergraduates make the same judgment about their students. It appears that the more one teaches in the graduate and postgraduate area, the more one is likely to think that students are either the same as or better than they were five years ago.

Whether a staff member was at a university or a CAE five years ago does, however, impart a difference in attitude toward the quality of students in their departments (table 2.9). Of staff who were teaching at a university then, 23 percent believe that students have improved and 40 percent indicate that they have remained about the same. The comparable responses from former CAE staff are 33 and 38 percent, respectively. When looked at by rank, however, 69 percent of lecturers and senior lecturers believe that students were better five years ago, whereas 72 percent of associate professors/readers and 77 percent of professors believe that students are about the same or better, compared with five years ago (table 2.8).

Current Debates and Future Trends

When attempting to detail major debates in higher education, it is all too easy to list issues that, five years hence, will have assumed much less

Table 2.8

FACULTY COMPARISON OF THE QUALITY OF STUDENTS CURRENTLY ENROLLED IN THEIR DEPARTMENT WITH THOSE ENROLLED FIVE YEARS AGO, BY TYPE OF INSTITUTION AND RANK (PERCENTAGES)

	BETTER NOW	ABOUT THE SAME	BETTER FIVE YEARS AGO	DON'T KNOW
TYPE OF INSTITUTION				
All faculty	25	34	20	21
University	23	40	25	13
College of Advanced Education	33	38	24	41
Not Applicable	18	16	8	57
RANK				
All faculty	24	32	20	24
Level A (associate lecturer)	13	17	14	56
Level B (lecturer)	22	28	17	33
Level C (senior lecturer)	27	38	26	9
Level D (reader/associate professor)	32	41	24	4
Level E (professor)	29	48	17	6

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Australia).

importance. A possible example in Australia is the current national scheme to competitively assess universities' performance on specified criteria and to then award additional funds to individual institutions according to their relative ratings. The Australian Quality Assessment scheme may be seen as rather less important once the period of initial review is over. Of arguably greater importance, however, is the trend, visible not merely in Australia but in several of the other systems surveyed, toward increased use of discretionary funds by central authorities, at both institutional and government levels, to redirect and gain greater steering capacity over universities.

Other longer-term trends also deserve mention and future monitoring. In Australia the explosion in size of the higher education system over the last decade or more may not be uniquely large compared with previous decades. Nevertheless, the move from "elite to mass higher education," also a theme considered worth scrutiny in several other systems of higher education, may carry significant implications.

The increased use of marginal or lower average levels of funding to sustain much of the increase has led to significant strain for both academic staff and institutional resources. Licensed by a long-standing (international) economic downturn, which was accompanied by rising demand for services such as education, the state has a changing role in higher education. A trend toward more centralized control, paralleled by more devolved responsibility, is evident not merely in higher education, and not merely in Australia, in recent years.

The much debated transition from elite to mass higher education in many countries, including Australia, is already leading to pressures on staffing in some areas, which may mean that academics might be recruited from more diverse backgrounds in the future.[41] This may well include both wider social strata and ethnic backgrounds, more women, and increasing recruitment of international academics. More contentious is likely to be pressure to make the age of retirement more flexible, which is seen by many as inhibiting career opportunities for the younger generation.

Further pressure for change is emerging from economic imperatives. Will the academic profession be pushed or encouraged to revise curricula to respond to what are essentially demographic pressures? There is already some questioning of the relevance of much course content for a more diverse clientele. Equally, increased government regulation—set against a background of renewed vocationalism in education, as well as a push for closer links between universities, business, and the world of work—is beginning to impose pressure for change. Both demographic and vocational pressures raise questions of institutional mission, appropriate diversity, and the role of higher education in society. But do the pressures for revision of mission and curricula necessarily tend in the same direction?

Economically induced tensions are already evident, due to the massively increased strain on faculty and on university resources in general created by the government's cumulative underfunding disregarding the demographic shifts in recent years. Not merely are staff working harder than ever before, but libraries, teaching facilities, and administration are increasingly strained. Research facilities, too, need a substantial injection of funds. The government's own commissioned report of 1993 on the research needs of higher education recommended an immediate injection of $A120 million to address outdated and inadequate facilities.[42]

In addition, the pressure for greater accountability, together with demands to tie public funding to performance-based measures of teaching and research output, have led to a considerably more competitive environment within higher education. Academic staff face the challenge of demands for more teaching (with heightened evaluation of teaching performance and the maintenance or development of a sound community service record); enhanced responsibilities in administration, occasioned both by internal devolution and by increasing federal requests for data on most aspects of university performance; and greater research productivity. A continuation of demands for increased productivity on all three fronts and at the institutional level is likely to lead to increasing alienation within the profession and obstacles to the recruitment of the best young graduates for careers in teaching and research in universities.

ASIA

Sungho H. Lee

THE ACADEMIC PROFESSION IN KOREA

KOREA HAS experienced dramatic economic growth in the past few decades. As one of the newly industrializing countries in Asia, Korea is making a great effort to maintain its economic prosperity and restructure its economy toward knowledge- and technology-based industries. The effort to shift the national economy away from a reliance on labor-intensive industries highlights the importance of higher education because universities play such a central role in producing highly skilled human resources. In a country like Korea, with very few natural resources, a well-educated workforce becomes the power behind socioeconomic development. The rapid expansion of higher education in Korea was a key element in the country's drive to restructure its economy. Korean academics deserve closer inquiry in light of their contribution to society through their research, teaching, and public service.

This chapter presents a collective portrait of Korean academics, based on the results of the International Survey of the Academic Profession conducted by The Carnegie Foundation. The first section briefly outlines the history and overall characteristics of Korean higher education. The second section offers a profile of the Korean professoriate, focusing on demographic features, education, and employment status. The third section analyzes the academic life of Korean professors, focusing on their working conditions, professional activities, and participation in the international academic community. The final section discusses what the findings of the study mean for the future of Korean higher education.

BACKGROUND

The Education Law of 1949 outlines a school system in accordance with the 6-3-3-4 single-ladder-type organization, which is still in use: that is, a six-year elementary school at the primary level, a three-year middle school and three-year high school at the secondary level, and a four-year college or university at the tertiary level. When Korea was liberated from Japanese colonial rule in 1945, there were only nineteen institutions of higher education and 753 faculty members to accommodate 7,819 students.

During the past half-century, however, the Korean higher education system has experienced rapid growth (table 3.1). This growth recently reached a peak, with the total number of institutions of higher education totaling 277 in 1992: 126 two- or three-year junior vocational colleges, 132 four-year colleges and universities, and 19 miscellaneous postsecondary schools.

The total enrollment in these institutions was 1.6 million in 1992, which amounts to about 3.6 percent of the entire population. The enrollment in higher education institutions per thousand population in Korea was about 45.4 in 1992.[1] The institutions vary widely in size, ranging from less than one hundred students to more than thirty-five thousand students. A considerable portion (47 percent) of faculty members work at medium-sized institutions with enrollments of 10,000 to 29,999 students, while about 10 percent are employed at large institutions with enrollments of 30,000 or more students. Less than half the faculty serve at small institutions with enrollments of less than 10,000.

Certain aspects of higher education in Korea are rooted in the country's history. For example, as a result of Japanese colonization (1910–45) and U.S. military government in Korea (1945–48), Japanese and U.S. influence on the Korean higher education system has been notable in terms of structure, curriculum, and administration. With regard to the United States, the process has been accelerated by the fact that so many Koreans have studied there. The majority of Korean students studying abroad have studied in the United States, and upon their return they have assumed key academic positions as well as high-ranking posts in the government. Nevertheless, despite the influence of Japan and the United States, Korean higher education has its own unique character, which has been shaped by both external forces and indigenous circumstances.[2]

Table 3.1

NUMBER OF HIGHER EDUCATION INSTITUTIONS, STUDENTS, AND FACULTY MEMBERS (1992)

	INSTITUTIONS		STUDENTS		FACULTY MEMBERS	
ALL TYPES						
Total	277	(100.0)	1,608,005	(100.0)	36,466	(100.0)
Public	48	(17.3)	333,391	(20.7)	10,36	(28.4)
Private	229	(82.7)	1,274,614	(79.3)	26,100	(71.6)
TWO- TO THREE-YEAR JUNIOR VOCATIONAL COLLEGE						
Total	126	(100.0)	404,996	(100.0)	7,044	(100.0)
Public	13	(10.3)	26,034	(6.4)	791	(11.2)
Private	113	(89.7)	378,962	(93.6)	6,253	(88.8)
FOUR-YEAR COLLEGE AND UNIVERSITY						
Total	132	(100.0)	1,086,673	(100.0)	29,095	(100.0)
Public	35	(26.5)	277,673	(25.6)	9,575	(32.9)
Private	97	(73.5)	809,000	(74.4)	19,520	(67.1)
GRADUATE SCHOOL						
Total	[335]	(100.0)	96,577	(100.0)	—	
Public	[75]	(22.4)	29,684	(30.7)	—	
Private	[260]	(77.6)	66,893	(69.3)	—	
MISCELLANEOUS SCHOOLS						
Total	19	(100.0)	19,759	(100.0)	327	(100.0)
Public	0	(0.0)	0	(0.0)	0	(0.0)
Private	19	(100.0)	19,759	(100.0)	327	(100.0)

SOURCE: National Institute of Educational Evaluation, *Statistical Yearbook of Education, 1992* (Seoul: Ministry of Education, 1992).

Notes: The numbers in parentheses denote the percentage distributions between public and private institutions. The Air & Correspondence College and the eight open colleges are excluded. In 1992, 303,760 students were enrolled in the Air & Correspondence College, and 70,205 students were enrolled in the eight open colleges. The number of faculty members excludes assistants, part-time lecturers, and guest and honorary professors. The number of graduate schools is excluded from the total number of higher educational institutions because they are attached to the four-year institutions.

When sketching the development of Korean higher education during the past forty-five years, with a particular focus on undergraduate education, five features stand out.

The first is Korea's dramatic expansion of higher education. The continued rise in the birthrate since the Korean War was an important factor in the growth, as was the increasing demand from society for a more equal distribution of educational opportunity. The demand for equal opportunity arose in part from the reality that the prestigious universities were concentrated in the major cities—particularly in the capital, Seoul—which made it difficult for students in peripheral areas to obtain good undergraduate educations. Another factor was that some academic disciplines were better supported than others because of the traditional values attached to them. In addition, the emergence of new fields of study and of promising job opportunities has stimulated the expansion of higher education. However, the most salient factor was the traditional value orientation of Koreans, who view higher education as a valuable means for socioeconomic mobility.[3]

The government has strictly controlled enrollments for the purpose of coordinating the supply and demand of human resources in Korean society and, simultaneously, regulating the quality of education in the colleges and universities. A conflict arose when the strong aspirations of people for higher education, particularly at the top-ranking institutions, were blocked by the limited access to higher education. A social problem began to emerge in the early 1970s—that is, an increase in the number of so-called re-examinees for the college entrance examination.[4]

Second, private institutions of higher learning greatly outnumber public institutions, with the former enrolling more than three-quarters of all students. Since the 1960s, the number of private institutions of higher education has multiplied so rapidly as to make a considerable contribution to the development of high-level human resources in Korea. Yet many private institutions today are faced with grave problems concerning educational quality and financial constraints. Private institutions rely on student tuition to cover more than 70 percent of their expenses, while about 54 percent of the budget in public institutions is covered by student tuition.[5]

The third feature of Korean undergraduate higher education is the American-style curriculum of the four-year colleges and the universities. The baccalaureate requires at least 140 credit hours, about 30 percent of which are devoted to general education. In addition to the semester system, the major-minor and double-major system has been in effect since 1973. In 1984 summer sessions were universalized and are now present in every four-year institution of higher education. The main problems in the area of curriculum include neglect of general education as peripheral, department fragmentation, and overly narrow specialization. At the undergraduate level in 1990, there were 558 distinct designated majors and 4,315 departments, but only twenty-six different undergraduate degrees. Until recently, to major in a subject area at a Korean university or college meant simply completing a sequence of courses in a certain specialty, without regard for balance or cohesion in depth and breadth.[6]

Fourth, for a long time, a salient feature of the Korean system of higher education has been direct government involvement in academic administration. In an attempt to ensure quality control, the government has participated in accrediting institutions, faculty, and programs. There have, however, been urgent demands for a new strategy for rehabilitating institutions of higher education by increasing academic autonomy. These demands culminated in 1982 with the formation of a nongovernmental and collective body of four-year institutions of higher education, the Korean Council for University Education. The primary function of the council is to ensure a basic level of quality and considerable independence and autonomy through professional evaluation of higher education institutions and programs. The primary mode of evaluation is the same as that of the accrediting system prevalent in the United States. Since its establishment, the council has conducted such institutional and programmatic evaluations every year.

The final prominent aspect of Korean higher education during the past forty-five years has been the planned transfer of emphasis in undergraduate education from the humanities and social sciences to the natural sciences and engineering. Teaching and learning in Korea's traditional Confucian society had traditionally embraced only literature, in keeping with the deep-rooted reverence for the "culturati." Then, in 1962, Korea launched the first Five-Year Economic Development Plan. Since then, the government has gradually increased enrollment quotas in the natural sciences and engineering each year, while limiting the increases in the humanities and the social sciences. Science and engineering accounted for 54 percent of the freshman enrollment quotas for four-year institutions of higher education in 1993.

In Korea, graduate education was initiated when the master's degree was conferred for the first time upon ninety students of Seoul National University in 1949.[7] Until the mid-1960s, however, the graduate program remained relatively undeveloped. It was modeled after the Japanese system, which in turn was originally based on the German system. Graduate education following the U.S. model began to develop when Yonsei University, a comprehensive top-level research-oriented university, opened a new U.S.-styled doctoral degree course in 1961 and conferred the doctoral degree upon three medical graduate students in 1965.[8] The following years saw enormous advances in the size, structure, and function of Korean graduate education. The number of graduate institutions rose from thirty-seven in 1965 to 335 in 1992, a more than ninefold increase, while the number of students made a twenty-four-fold increase, approaching ninety-seven thousand students in 1992 (table 3.1).

Today, Korea's graduate schools are divided into two types: first, academic graduate schools, which are research oriented and offer master's and doctoral degree programs; and second, professional graduate schools, which emphasize practical experience or professional knowledge and offer master's degrees exclusively. The major fields in professional graduate schools include business administration, public administration, education, public health, environment, and engineering. The academic graduate schools have about forty-one thousand graduate students working for master's degrees, and about sixteen thousand for doctoral degrees. In addition, about 39,500 graduate students are working for master's degrees in professional graduate schools.

PROFILE OF THE KOREAN PROFESSORIATE

Sex and Age

The survey[9] looked at the sex and age distribution of the Korean professoriate (table 3.2). Male academics dominate the professoriate in Korea, similar to the situation in the other countries participating in the Carnegie survey, but perhaps to a greater extent in Korea, where only 12 percent of the faculty are female. In terms of age, about 71 percent of the entire faculty are in the prime 36-to-55 age group. The mean age of the Korean professoriate in 1990 was 44.8 years, which is a little older than the 1983 figure of 43.8 years.[10] However, empirical studies have not shown that the mean age of Korean faculty has risen over the years.

Highest Earned Degree

In Korea, the percentage of all faculty with doctorates has risen substantially over the years—from 10 percent in 1967,[11] to 40 percent in 1983,[12] and to 74 percent in 1990 (table 3.3).

A doctoral degree is now a prerequisite for employment as a professor in most four-year universities and colleges. Correspondingly, the percentage of faculty with a bachelor's degree as their highest earned degree has virtually reached zero. It was found that about 12 percent of the sample, or about 54 percent of faculty in the sample without a doctoral degree, were working toward an advanced degree. It is important to consider where faculty earned their highest degree. In 1983, about 61 percent of faculty members had earned their highest degrees from domestic institutions and 39 percent from foreign institutions, predominantly in the United States.[13] In 1990, however, the percentage of faculty members earning their highest degrees from domestic institutions had risen to 77 percent. Only 23 percent of the faculty earned their highest degrees abroad.

Table 3.2

SEX AND AGE OF THE PROFESSORIATE (PERCENTAGES)

	ALL FACULTY	CARNEGIE STUDY RESPONDENTS
SEX		
Female	12	13
Male	88	87
AGE		
35 and under	14	12
36–45	43	47
46–55	28	31
56–65	15	11
66 and over	1	0
Mean age	45	45

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea); and Sungho H. Lee, *An Analysis of the Characteristics of the Korean Professors in 1990* (mimeo.).

Work Experience

Korean faculty on the whole have had varied work experiences both inside and outside the academy. Seventy-three percent of the sample report their full-time work experience to have been in a single institution of higher education, while 27 percent have worked in more than one institution. Thirty-two percent report that they have never engaged in professional work outside of higher education. Thirty-eight percent have worked outside the academy for one to five years, and 30 percent for more than five years. Half of the faculty in Korea have worked full-time in higher education for less than ten years, and about 60 percent have been employed at the current institution for less than ten years. In Korea,

Table 3.3

ACADEMIC CREDENTIALS OF THE PROFESSORIATE (PERCENTAGES)

	ALL FACULTY	CARNEGIE STUDY RESPONDENTS
DEGREE		
Doctorate	74	78
Master's	23	21
Bachelor's	4	1
WORKING TOWARD AN ADVANCED DEGREE		
Yes	—	12
No	—	88

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea); and Sungho H. Lee, *An Analysis of the Characteristics of the Korean Professors in 1990* (mimeo.).

very few faculty engage in outside remunerative work. Ninety percent of faculty report that they do not currently hold any paid positions outside their current institution. In Korea, institutions do not encourage their faculty to take part in outside remunerative activities, except for authorized university–industry links, on the grounds that professors should devote as much time as possible to teaching students and conducting research.

Rank and Tenure

In Korea, there are four academic ranks for full-time faculty: instructor, assistant professor, associate professor, and (full) professor (table 3.4). There are no restrictions on rank distribution within departments, universities, or colleges. The percentage in the two upper ranks amounts

Table 3.4

ACADEMIC RANK OF THE PROFESSORIATE (PERCENTAGES)

	ALL FACULTY	CARNEGIE STUDY RESPONDENTS
Professors	34	36
Associate professors	31	36
Assistant professors	25	25
Instructors	10	4

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea); and Sungho H. Lee, *An Analysis of the Characteristics of the Korean Professors in 1990* (mimeo.).

to about 65 percent of the population, and 72 percent of the sample. Clearly the professoriate in Korea has become top-heavy.

Initial recruitment in institutions of higher education in Korea is conducted through open competition. The core qualifying criteria include holding a doctorate degree, having produced research, and being below forty years of age. Final decisions concerning initial appointments are made by the university personnel committee, which considers the recommendations of the department personnel committees. New faculty members are usually appointed on an individual contract of employment, for a maximum of one or two years. The initial contract is renewable for different lengths of service depending on the rank (e.g., seven years for associate professors, but only two years for assistant professors and instructors). When faculty members are promoted to the rank of full professor or associate professor in some universities and colleges, they are usually granted tenure until the retirement age of sixty-five years.

In the Korean system of higher education, the academic tenure system is not well defined and differs in nature and function from the American system. Recognizing that each national system has its own distinctive patterns and mechanisms for faculty development, a comparison of the Korean system of faculty employment and promotion with the American would be of questionable value. For example, in the American context the mobility of professors, both tenured and nontenured, between institutions is rather frequent and even desirable, while such mobility is extremely limited and ill-advised in Korean academic culture. The perception among Korean faculty is that promotion to full professor or associate professor is equivalent to receiving tenure. About 32 percent of full-time faculty are tenured, with the other 68 percent appointed on a contract basis.

Major Field or Department

Most Korean institutions of higher education are organized into academic, discipline-based departments, typically composed of faculty members with training and expertise in a particular discipline. Correspondingly, many faculty members equate their major fields of study with the departments of their primary academic appointments. The average number of departments in a four-year institution of higher education was thirteen in 1965, but had grown to thirty-three by 1992. On the other hand, the average number of faculty members in a department was 6.0 in 1965 and 6.7 in 1992.[14] More than three-quarters of the sample are in departments with fewer than ten faculty. Consequently, many departments lack a sufficient number of full-time faculty members to cover the major areas of study in a discipline.

The professoriate in Korea is about equally divided among the academic disciplines. Approximately 17 percent of faculty are appointed in the humanities, 16 percent in the social sciences, 23 percent in the natural sciences, 15 percent in engineering, 15 percent in the health sciences, 6 percent in the fine arts, and 8 percent in education.

Many Korean faculty recognize their departments and their major fields of study as their home bases in academic life. A large majority indicate a high degree of commitment to their academic disciplines and departments (table 3.5). The faculty seem on the whole loyal to their disciplines and departments, but less so to their institutions.

Table 3.5

IMPORTANCE OF ACADEMIC DISCIPLINE, INSTITUTION, AND DEPARTMENT TO FACULTY (PERCENTAGES)

	VERY IMPORTANT	FAIRLY IMPORTANT	NOT TOO IMPORTANT	NOT AT ALL IMPORTANT
Academic discipline	80	19	1	0
Institution	37	51	11	1
Department	65	32	3	0

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Participation in Professional Organizations

With few exceptions faculty are members of at least one domestic scientific or professional society. About 86 percent of the sample hold memberships in one to four societies, and about 14 percent of the faculty members maintain memberships in more than five professional organizations. About 47 percent of the sample hold memberships in one or two foreign societies.

On the other hand, about 58 percent of the respondents report that they have participated in professional conferences held in Korea less than six times during the previous three years, while about 39 percent have participated more than seven times during the previous three years. It is interesting to note that about 55 percent of the sample have not attended any professional conferences held abroad during the same period. Only 32 percent of the sample have participated once or twice in professional conferences held abroad.

WORKING CONDITIONS

Overall Workload

The professional work of faculty has traditionally been divided into four main areas: teaching, research, service, and administration. In most Korean four-year colleges and universities, faculty members are largely autonomous in deciding how they allocate time in their professional work. On average, they are required to teach nine to ten credit hours a week. Beyond this obligation, they are free to use their own discretion in arranging their priorities.

Faculty in four-year institutions, on average, work 51.5 hours per week during the academic year and 48.4 hours per week during the lengthy vacation periods. When classes are in session, 23.0 hours per week are devoted to teaching (including class preparation and student advisement), about 17.1 hours to research, 3.8 hours to service, 4.6 hours to administration, and 3.0 hours to other professional activities. Teaching and research are the major areas of professional effort, and together they account for 78 percent of the total working time.

During vacation periods, faculty spend almost as much time working as when classes are in session, but with some variations in distribution of time. Much more time is devoted to research, which accounts for 58 percent of the total 48.4 hours of work. Summer sessions and/or some informal, noncredit courses take up 8.2 hours of instruction per week during vacation periods. Contrary to charges that academics work few hours or not at all during vacation periods, most do, in fact, work long hours, even when classes are not in session (table 3.6).

Income and Benefits

It is widely recognized in Korea that academic salaries are not competitive with those in other professional and managerial occupations. The academic salary structure is uniform across all public colleges and universities, while it varies a great deal in private colleges and universities. In some selective elite private universities, where competition for faculty

Table 3.6

HOURS SPENT PER WEEK ON PROFESSIONAL ACTIVITIES

	CLASSES IN SESSION		CLASSES NOT IN SESSION	
	MEAN HOURS	PERCENTAGE	MEAN HOURS	PERCENTAGE
Teaching	23.0	45	8.2	17
Research	17.1	33	28.1	58
Service	3.8	7	4.9	10
Administration	4.6	9	3.6	7
Other	3.0	6	3.6	7
Total	51.5	100	48.4	100

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

members is likely to be most keen, the average salary levels exceed those at public institutions.

About 26 percent of faculty members earn between $10,000 and $24,999 per academic year, and about 54 percent earn between $25,000 and $39,999 (table 3.7). Faculty with incomes above $40,000 per academic year make up about 15 percent of the entire sample. Korean academics receive about 90 percent of their income from their academic institution and 10 percent from outside their institution.

Many faculty members express discontent with their income and some of their fringe benefits (table 3.8). Fifty percent rate their academic salary as "poor"; and when asked about prospects for improvement in their academic salary in the coming five years, 45 percent describe them as "poor."

Fringe benefits vary from institution to institution. Some institutions provide their faculty members with a good program of compensation—including paid sabbatical leaves, pension plans, travel funds, medical

Table 3.7

FACULTY INCOME LEVELS AND INCOME SOURCES

	PERCENTAGE
INCOME LEVEL	
Below $ 5,000	4
$ 5,000 – $ 9,999	1
$10,000 – $24,999	26
$25,000 – $39,999	54
$40,000 – $54,999	12
$55,000 – $69,999	2
$70,000 – $84,999	0
$85,000 or more	0
INCOME SOURCE	
Academic institution	90
Other academic endeavors	6
Nonacademic work	4

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Note: Currency was converted to U.S. dollars.

insurance, and housing—others, however, have never offered such fringe benefits. In Korean colleges and universities, the pension plans for faculty members are acceptable when compared with other benefits. However, many institutions do not provide faculty members with paid sabbatical leaves and travel funds. Fifty-two percent of faculty members report that paid sabbatical leaves are not available in their institutions. Even where such benefits are available, 23 percent find the level of support inadequate. Concerning travel expenses, about 30 percent work at institutions in which funding is not available, and 53 percent complain about insufficient travel money.

Table 3.8

FACULTY RATING OF SALARY AND BENEFITS (PERCENTAGES)

	EXCELLENT	GOOD	FAIR	POOR	DON'T KNOW/ NOT AVAILABLE
Own academic salary	1	12	35	50	2
Prospects for improvement in your academic salary in the coming five years	1	10	27	45	17
Retirement arrangements	2	16	52	27	3
Paid sabbatical leaves	3	9	13	23	52
Travel funds	0	3	14	53	30
Other fringe benefits[a]	0	6	30	50	14

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

[a] This includes medical insurance, life insurance, housing, and education.

Table 3.9

ASSESSMENT OF ACADEMIC CLIMATE AND FACILITIES (PERCENTAGES)

	EXCELLENT	GOOD	FAIR	POOR	DON'T KNOW/ NOT AVAILABLE
ACADEMIC CLIMATE					
Intellectual atmosphere	3	20	43	34	0
Faculty-administration relations	1	15	46	38	0
Faculty morale	1	15	42	41	0
Clarity of the institutional mission	3	22	45	30	0
Sense of community	3	19	48	30	0
FACILITIES					
Classrooms	3	16	39	42	0
Technology for teaching	1	8	30	57	4
Laboratories	1	7	22	52	19
Research equipment and instruments	1	7	25	61	6
Computer facilities	2	10	36	43	9
Library holdings	1	7	27	65	1
Faculty offices	4	17	47	32	0
Secretarial support	0	6	26	46	22

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Academic Culture and Research Facilities

The survey looked at various aspects of the overall collegial environment in Korean higher education institutions. Faculty were asked to evaluate the facilities, resources, and personnel needed to support their work at their institutions and to rate the quality of the students in their departments (tables 3.9 and 3.10).

Only 23 percent of faculty members, the lowest percentage among the fourteen countries surveyed, describe the intellectual atmosphere at their institutions as excellent or good. Fifty-eight percent rate faculty morale at their institutions as excellent to fair, while 41 percent rate it as poor. Because faculty morale is a reflection not only of campus-specific conditions but also of general developments in higher education, it is difficult to explain why so many respondents rate faculty morale so poorly. However, given the responses to our survey regarding working conditions, it is likely that faculty dissatisfaction with facilities, resources, and personnel is a significant factor behind the low morale. A substantial portion of faculty, in most instances more than half, point to inadequacy, obsolescence, and deferred maintenance of the technology for teaching, laboratories, research equipment and instruments, and even library holdings. Regarding secretarial support, 22 percent of faculty members reply that it simply does not exist, and 46 percent think they receive a very poor level of support. Compared with other facilities, both classrooms and faculty offices are evaluated as being moderately acceptable by many faculty members. In addition, many faculty members evaluate the quality of the students currently enrolled in their departments as being on the fair to poor side, but see improvement from five years ago.

Career Satisfaction

In Korea, faculty in general have a positive view regarding their careers. A majority of them indicate that they are satisfied with the courses they teach, their relationships with colleagues, job security, prospects for promotion, and job situation as a whole. However, a number of faculty

Table 3.10

FACULTY ASSESSMENT OF STUDENT QUALITY (PERCENTAGES)

		EXCELLENT	GOOD	FAIR	POOR	DON'T KNOW
Quality of students currently enrolled		4	18	40	38	0
	BETTER NOW 1	2	ABOUT THE SAME 3	4	BETTER FIVE YEARS AGO 5	DON'T KNOW 6
Quality of students compared with those enrolled five years ago	5	31	34	17	6	7

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Table 3.11

FACULTY SATISFACTION WITH JOB (PERCENTAGES)

	VERY SATISFIED 1	2	NEUTRAL 3	4	VERY DISSATISFIED 5	DON'T KNOW/ NOT APPLICABLE 6
Courses taught	20	62	15	3	0	0
Relationships with colleagues	9	56	26	7	3	0
Job security	12	59	21	5	3	0
Prospects for promotion	10	59	18	3	1	9
Opportunity to pursue my own ideas	3	22	42	24	8	2
Institutional management	1	14	33	33	19	1
Job situation as a whole	6	50	36	7	1	0

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

members also offer criticisms about the opportunity to pursue their own ideas and about the way in which their institutions are managed (table 3.11).

Thirty-one percent express dissatisfaction over lack of opportunity to pursue their own ideas. Among the many obstacles to scholarly work are the lack of research facilities, equipment, and personnel (including graduate assistants); heavy teaching loads; and, in some fields, ideological constraints on pursuing particular topics. The written comments of respondents point to several possible ways to improve the situation: encouraging faculty mobility among different institutions to promote scholarly communication and providing faculty with greater opportunity to go abroad in order to keep up with developments in their fields.

Faculty were asked to evaluate the training they received for their roles as teachers and scholars. The great majority of respondents perceive their training to have been acceptable, but only 13 percent rate as excellent their training to be a teacher, and only 14 percent rate as excellent their training to be a researcher (table 3.12).

Respondents were asked to reflect on their major fields and academic careers. A great majority, more than three-quarters of faculty, describe the current period as an especially creative and productive one in their fields. Sixty percent disagree with the statement that the current period is a poor time for any young person to begin an academic career in their fields. Only 10 percent say that if they had it to do over again they would not become a professor. While job satisfaction and attitude are shown to be positive, large numbers, nearly half, report experiencing considerable personal strain from their profession.

The respondents who expect to leave the institution within five years account for only 7 percent of the sample. When thinking about leaving their institution, faculty members list the amount of resources for research as the most important reason and income level as the least important reason (table 3.13).

Table 3.12

ASSESSMENT OF TRAINING FOR TEACHING AND RESEARCH (PERCENTAGES)

	TEACHING	RESEARCH
Excellent	13	14
Good	47	41
Fair	32	33
Poor	8	12

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Table 3.13

ASSESSMENT OF REASONS TO STAY WITH OR LEAVE THIS INSTITUTION (PERCENTAGES)

	STRONG REASON TO LEAVE 1	2	3	4	STRONG REASON TO STAY 5	NOT APPLICABLE 6
Income	8	10	43	7	5	27
Resources for research	21	21	27	10	6	15
Academic reputation of institution/department	13	18	33	9	9	18
Academic cooperation among colleagues	10	18	36	11	7	19
Location	15	14	27	10	12	23

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Table 3.14

NUMBER OF HOURS SPENT TEACHING PER WEEK, BY TYPE OF INSTRUCTION (PERCENTAGES)

	GROUP INSTRUCTION
HOURS PER WEEK	
9 or less	24
10–12	35
13–15	26
16–18	9
19 or more	6
Mean hours	*(12)*
	INDIVIDUALIZED INSTRUCTION
None	24
1–2	22
3–4	22
5–6	17
7 or more	16
Mean hours	*(4)*

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

TEACHING

Teaching Load

All Korean professors are involved, at least to some extent, in teaching. About two-thirds of faculty teach both undergraduate and graduate or professional students, while one-third teach only undergraduate students. Two percent of faculty teach only graduate or professional students.

On average, Korean faculty teach 16.2 hours per week: 12.3 hours of group instruction in classrooms and laboratories, and 3.9 hours of individualized instruction (table 3.14). This shows substantial change

Table 3.15

NUMBER OF COURSES TAUGHT, BY LEVEL (PERCENTAGES)

	INTRODUCTORY UNDERGRADUATE	OTHER UNDERGRADUATE	GRADUATE/ PROFESSIONAL
None	19	19	22
1	37	25	48
2	25	30	22
3	12	16	5
4 or more	7	9	3
Mean number of courses	*(2)*	*(2)*	*(1)*

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

from past surveys. According to a nationwide survey undertaken in 1982, the teaching load of Korean faculty was 14.1 hours per week.[15] Since in most institutions faculty are required to teach 9 to 10 credit hours per week, more than three-quarters have heavy teaching loads. In terms of the number of courses, the majority of faculty teach four courses (12 credit hours): three undergraduate courses and one graduate or professional course. It is interesting to note that of those faculty responding to this question, 70 percent teach one or two graduate or professional level courses (table 3.15).

In calculating the teaching load of professors, the number of students enrolled in the courses they teach has been identified as an important factor. Class size also plays a key role in deciding classroom practices and faculty teaching effectiveness. The average class size for introductory undergraduate courses is larger than that for other undergraduate courses (table 3.16). In some graduate courses, class size is too large to provide the students with an atmosphere conducive to learning. Discussion sessions are highly regarded as a means of encouraging better learning, but such large classes are not conducive to this type of instruction.

Table 3.16

CLASS SIZE, BY TYPE OF COURSE

	SMALLEST CLASSES	LARGEST CLASSES
UNDERGRADUATE INTRODUCTORY COURSES		
Range	3 to 505	9 to 300
Mode	40	40
Mean	39.4	76.6
OTHER UNDERGRADUATE COURSES		
Range	1 to 120	5 to 280
Mode	40	50
Mean	29.4	59.0
GRADUATE OR PROFESSIONAL COURSES		
Range	1 to 400	1 to 200
Mode	3	5
Mean	8.2	17.3

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Teaching Methods

The majority of Korean academics rely on the lecture method, a reflection of Confucianism's powerful hold on education in Asia. Nearly 60 percent of respondents report that they devote more than 80 percent of class time to lecturing. A large minority say that they set aside about 20 to 40 percent of their class time for discussion and laboratory work. A majority of faculty devote three-quarters of class time to lecturing and the other one-quarter to discussion, laboratory work, and other instructional activities.

What activities do faculty require of their students for successful completion of their courses? Course requirements for the two types of undergraduate courses, not surprisingly, are very similar, while requirements for graduate and professional courses are significantly different (table 3.17). For undergraduate courses, professors are most likely to require their students to attend class regularly, to write several short papers, and to take two or more examinations for successful completion of their courses. However, for graduate or professional courses, they require a major paper, a formal oral presentation, and regular attendance. In terms of actual classroom teaching practices, this means that the prime mode is lecturing in the undergraduate classroom, but classroom discussion for graduate or professional students. These findings suggest that teaching practices in Korean institutions of higher education are geared to the level of courses taught.

Teaching Effectiveness

Effective teaching is influenced by a variety of factors (table 3.18). The circumstances Korean faculty members perceive as influencing their teaching in a positive manner include "research commitments" (41 percent) and "kinds of courses" (36 percent). On the other hand, the circumstances that influence them in a negative manner are "teaching facilities and resources" (35 percent) and "administrative work" (33 percent).

Only a few faculty report that their interest lies primarily either in teaching or in research; we found a nearly equal distribution of the faculty in these two groups (5 percent primarily interested in teaching, 6 percent primarily interested in research). More generally, 45 percent of faculty report a greater interest in teaching than in research with 56 percent more interested in research.

Currently, about 60 percent of the respondents say that their work is evaluated regularly at their institutions. The major activities evaluated are teaching and research. Research achievements are evaluated at most

Table 3.17

ACTIVITIES FACULTY REQUIRE OF STUDENTS FOR COURSE COMPLETION (PERCENTAGES)

	INTRODUCTORY UNDERGRADUATE COURSES	OTHER UNDERGRADUATE COURSES	GRADUATE OR PROFESSIONAL COURSES
Attend class regularly	84	71	57
Write several short papers	47	56	44
Write a major paper	18	27	62
Make a formal oral presentation	21	31	61
Participate actively in class discussion	24	32	38
Take a single examination	10	11	25
Take two or more examinations	81	77	28
No specific requirements	3	3	3

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Table 3.18

INFLUENCE OF VARIOUS CIRCUMSTANCES ON TEACHING (PERCENTAGES)

	STRONG POSITIVE INFLUENCE 1	2	NEUTRAL/ NO INFLUENCE 3	4	STRONG NEGATIVE INFLUENCE 5	NOT APPLICABLE 6
Number of courses assigned to teach	15	17	38	14	9	8
Kinds of courses assigned to teach	16	20	29	18	13	5
Number of students enrolled in my classes	12	19	37	17	10	4
Amount of student advising	12	21	39	13	8	8
Teaching facilities and resources	15	17	27	19	15	7
Research commitments	13	28	35	13	6	4
Administrative work	3	9	32	20	14	22
Availability of research funding	10	17	35	14	11	13
Nonacademic professional activities	3	9	37	15	9	28

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

institutions of higher education, and nearly two-thirds of the respondents say that teaching is evaluated at their institutions. Senior administrators are the most frequent source of evaluations, followed by departmental peers and heads of department. For evaluation of research, departmental peers and external reviewers are frequently involved.

Systematic evaluation of faculty is essential to ensure not only the quality of faculty but also their effectiveness as teachers. However, few institutions in Korea carry out regular student evaluations of faculty performance. Nearly two-thirds of the respondents show a positive attitude toward students' evaluation of teaching performance. In addition, 70 percent are of the opinion that better ways to evaluate teaching should be developed at their institutions. Just over 40 percent of the respondents agree that teaching effectiveness should be the primary criterion for promotion of faculty. This is a significant portion of faculty, given that in most Korean colleges and universities research achievement alone is employed in evaluating faculty for promotion.

Ability and Performance of Students

The respondents estimate that about 70 percent of secondary school students are capable of completing their secondary education. They also believe that of those graduates about 44 percent should be admitted to institutions of higher education. This estimate is far below the actual advancement rate, which is 63 percent, according to the statistics of the Korean Ministry of Education in 1992. In other words, faculty appear to believe that the current level of advancement to higher education exceeds the optimum level for Korea.

Faculty express a positive attitude regarding the ability of students in Korean colleges and universities. More than half the respondents acknowledge the ability of students in written and oral communication skills, and 35 percent acknowledge their mathematics and quantitative reasoning skills. In contrast, the faculty express a relatively negative attitude regarding the performance of the students. Nearly half of the faculty agree that "students do just enough to get by academically," and a quarter of the faculty agree that "they are willing to cheat to get good grades."

Compared with students they had five years earlier, 35 percent of the faculty perceive current students to be as studious, while 29 percent of the faculty do not. With regard to the statement "faculty should spend more time with students outside the classroom," about 26 percent of the faculty agree. Generally speaking, a substantial proportion of the faculty believe there is room for improvement in student performance, and that this inadequate performance adversely affects teaching effectiveness.

RESEARCH

Productivity

In academic circles, research has, for the most part, been identified as the prime academic pursuit for faculty. Moreover, on the much debated question of whether faculty pursuit of research interferes with teaching (table 3.18), there are undoubtedly many instances in which a professor's research complements and enriches class instruction. It would, then, be useful to know the extent to which faculty are involved in research and to what extent they make scholarly contributions through their research.

The data appear to confirm the fact that the greatest portion of research is performed by just a small group of faculty in Korean colleges and universities (table 3.19). Three-quarters of Korean professors have neither written nor edited scholarly books in the previous three years. Many Korean faculty do, however, publish book chapters or journal articles and write research reports or monographs for funded projects. About 95 percent of faculty have published at least one chapter in an academic book or one article in a scholarly journal in the previous three years, and 78 percent of faculty have written at least one research report or monograph in the previous three years.

In Korea, a large majority of faculty members are currently engaged in research projects. About 70 percent of faculty members have their own research projects; 69 percent work independently on their research projects, and 68 percent have collaborators.

Either as individuals or as part of an academic group, 75 percent of

Table 3.19

NUMBER OF RESEARCH ACTIVITIES AND PUBLICATIONS IN THE LAST THREE YEARS (PERCENTAGES)

	0	1	2	3	4	5	6+	MEAN
Scholarly book authored	55	29	10	4	1	1	1	1
Scholarly book edited	61	26	8	2	1	1	2	1
Article published in a book or journal	5	6	14	19	13	9	34	6
Research report or monograph	23	33	21	11	4	3	6	2
Paper presented at a conference	23	24	17	11	4	5	16	3
Professional article written for magazine	61	12	10	5	2	4	7	2
Patent secured	96	4	1	0	0	0	0	0
Computer program written for public use	94	4	1	0	0	0	0	0
Artistic work performed or exhibited	91	1	1	1	0	1	5	1
Video or film produced	96	3	1	0	0	0	0	0

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Table 3.20

RESEARCH FUNDING IN THE LAST THREE YEARS

	PERCENTAGE
AMOUNT OF RESEARCH FUNDS	
Less than $ 5,000	33
$ 5,000 to $ 24,999	45
$ 25,000 to $ 49,999	12
$ 50,000 to $ 99,999	6
$100,000 to $249,999	3
$250,000 to $499,999	1
$500,000 or more	0
SOURCES OF RESEARCH FUNDS	
This institution	39
Government	74
Business firms	18
Private foundations	11
International organizations	2
Others	2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Note: Currency was converted to U.S. dollars.

respondents received grants or special funding for research in the previous three years. While the number receiving funding is not low, the total amount received during the same three-year period is exceedingly low (table 3.20). Nearly 80 percent of faculty report that the total amount of research funding they received was less than $25,000. About 33 percent report a deplorably low amount of funding—less than $5,000—during that same three-year period. The government is the most frequent source of research funding indicated by faculty, with the institution to which they belong the next most important source of research funds. A small minority of faculty obtain funds from business firms, private foundations, and international organizations. Cooperation between academics and the business world in Korea is negligible, to judge from the number of faculty members who receive research funding from business firms.

Research Climate

What makes faculty members turn their attention away from research? To some extent the drop in research activity may reflect the inadequacy of research funds, facilities, and opportunities. More than 30 percent of the respondents indicate that their academic research is negatively influenced by lack of facilities and resources, heavy teaching load, and administrative work (table 3.21). In addition, more than one-quarter of faculty report that the kinds of courses they are assigned to teach, number of students enrolled in their classes, and quality of students available as research assistants also influence their academic research work in a negative fashion.

In the written comments of the respondents to the Carnegie survey questionnaire, the most commonly mentioned factor constraining research is the lack of adequate facilities and equipment. This complaint is more common in the fields of science and engineering, which require equipment and laboratories, than in the humanities and social sciences. Lack of research facilities is closely related to lack of research funding. Korean professors report that the amount of funding they receive is often insufficient to support research on a regular basis. Korean professors believe that without sustained support for university-based research, they cannot fully commit themselves to research.

These professors suggest that a possible solution would be support for research from government and industry; but it should be noted that government is already one of the two main funding sources for research (universities being the other main source). Given the rapidly increasing expenses for conducting research, large-scale and long-term research projects demand more diverse funding sources, especially with more support coming from industry.

Table 3.21

INFLUENCE OF VARIOUS CIRCUMSTANCES ON RESEARCH (PERCENTAGES)

	STRONG POSITIVE INFLUENCE 1	2	NEUTRAL/ NO INFLUENCE 3	4	STRONG NEGATIVE INFLUENCE 5	NOT APPLICABLE 6
Availability of research funding	25	22	21	12	10	10
Research facilities and resources	10	17	28	19	14	12
Number of courses assigned to teach	4	15	40	25	9	8
Kinds of courses assigned to teach	6	18	41	20	7	9
Number of students enrolled in my classes	3	11	45	20	7	14
Quality of students available as research assistants	7	19	26	16	11	21
Amount of student advising	3	18	42	17	6	15
Nonacademic professional activities	2	11	34	14	6	33
Administrative work	2	6	33	20	12	28

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Several studies on research productivity in higher education indicate that research climate has an effect on research motivation and output. It would appear that the research climate for Korean faculty members is generally favorable for research-oriented professors. More than half the faculty feel an obligation to engage in research, and two-thirds agree that they are expected to engage in regular research activity in their academic positions at their institutions. Nevertheless, the respondents indicate that certain constraints with regard to research do exist.

The respondents are critical of how research achievement is evaluated. About half the faculty point out that while their institutions use publications as a prime measure for promotion, those publications are simply counted, not qualitatively evaluated. Korean faculty suggest that the necessary academic infrastructure must be in place for the systematic and qualitative evaluation of research and publications.

In addition, about 40 percent of faculty think that, in Korea, there are political or ideological restrictions on what a scholar may publish. Lack of freedom in research is of greater concern among professors in the humanities and social sciences than among those in science and engineering because the former are more likely to be dealing with ideological and political issues. Professors' perceptions of lack of freedom in choosing research topics and in getting their research published reflect the overall political situation in Korea. The divided situation of the two Koreas has made political and ideological matters very sensitive areas of scholarship.

SERVICE

External Activities

Faculty external activities include professional service, public service, and research service. Professional service includes such activities as giving advice and technical assistance to businesses, government, social organizations, communities, and individuals. Although the public service demands are not as great, faculty are required to participate in conferences, seminars, workshops, and councils. Most external activities undertaken by faculty members are research related—having to do with public policy issues or problems in industry. Korean faculty work with a variety of organizations. About 43 percent of faculty provide their services to educational institutions. Only a few faculty have worked with international government bodies or other international associations.

In Korea, a significant segment of the professoriate feel that they are not paid well enough for their external service. More than half report that less than 20 percent of the time devoted to service has been remunerated. For some faculty members, however, external service seems to constitute a secondary source of income. About 60 percent of faculty admit that more than 40 percent of their service activities have been remunerated. The strongest positive factor influencing the service activities of Korean faculty members turns out to be research commitments, while the strongest negative factor is administrative work (table 3.22).

Korean faculty members seem to regard the performance of professional external service as a key role for professors. More than three-quarters of the respondents agree that faculty have a professional obligation to apply their knowledge to problems in society. About 43 percent of faculty feel a need to earn additional income through paid external service. Many professors who engage in external service work coordinate it with teaching, research, and other institutional obligations. Sixty-six percent of those faculty do not agree with the following statement, "For me, service activity beyond the institution is a distraction and competes with essential academic work." Compared with such core roles as teaching and research, however, they do not regard external service work as important enough to be considered in faculty evaluations.

Institutional Governance

Beyond teaching, research, and external service, professors are typically called upon to play some internal service role in the administration of their academic unit and institution as a whole. Such academic citizenship activities vary greatly, depending on the type of governance adopted in the institution. In a broad sense, most governance arrangements in

Table 3.22

INFLUENCE OF VARIOUS CIRCUMSTANCES ON SERVICE (PERCENTAGES)

	STRONG POSITIVE INFLUENCE 1	2	NEUTRAL/ NO INFLUENCE 3	4	STRONG NEGATIVE INFLUENCE 5	NOT APPLICABLE 6
Number of courses assigned to teach	4	13	39	14	5	27
Kinds of courses assigned to teach	4	11	40	13	6	27
Number of students enrolled in my classes	2	5	45	13	4	30
Amount of student advising	3	7	44	12	3	31
Research commitments	6	21	34	13	6	21
Availability of research funding	4	14	34	8	4	36
Administrative work	4	8	34	14	5	36
Nonacademic professional activities	3	10	38	9	3	37

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

institutions of higher education are characterized as centralized, decentralized, or a blend of both. In centralized governance, most key decisions are made by top administrators, while in decentralized governance, they are made by the faculty themselves.

Korean professors view the governance at their institutions as very centralized (table 3.23). They believe the top administrators have the power to decide such major administrative affairs as the selection of key administrators, faculty promotion and tenure decisions, budget priorities, admission standards for undergraduate students, and the approval of new academic programs. Faculty seem to participate only in such institutional decisions as the selection of new faculty and assignment of teaching loads. This means faculty in Korean institutions of higher education do not have a great deal of authority in the decision-making process at the institutional level. Only at the departmental level do they have influence on the process. The extent of faculty influence at each level is shown in table 3.24.

The vast majority of professors think that they are not well informed about what is going on at their institutions (table 3.25). Korean professors have a tendency to characterize the governance at their institutions as autocratic. They attribute this administrative autocracy to poor communication between the faculty and administration and to the lack of faculty involvement. In their written comments at the end of the Carnegie survey, the professors express a strong desire for autonomy in institutional governance. The lack of autonomy is thought to hinder the capacity of each university to develop its unique characteristics. Reasonable involvement of faculty members in university policymaking and their communication with top administrators are critical in developing institutional governance in Korean institutions of higher education. It should be noted, however, that nearly 40 percent of the professors oppose giving students a voice in university governance, even with respect to determining policies affecting students. This shows that there is considerable opposition among professors to student activism in Korean colleges and universities.

Table 3.23

FACULTY PERCEPTIONS OF CENTRALIZATION OF GOVERNANCE (PERCENTAGES)

	CENTRALIZED 1	2	3	4	DECENTRALIZED 5	DON'T KNOW
Selecting key administrators	51	24	16	5	3	2
Choosing new faculty	12	14	28	22	24	1
Making faculty promotion and tenure decisions	15	22	37	15	9	3
Determining budget priorities	45	29	16	4	2	5
Determining the overall teaching load of faculty	6	13	26	24	29	2
Setting admission standards for undergraduate students	24	17	27	8	9	15
Approving new academic programs	27	26	24	11	8	4

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Table 3.24

DEGREE OF FACULTY INFLUENCE ON GOVERNANCE AT EACH INSTITUTIONAL LEVEL (PERCENTAGES)

	VERY INFLUENTIAL	SOMEWHAT INFLUENTIAL	A LITTLE INFLUENTIAL	NOT AT ALL INFLUENTIAL	NOT APPLICABLE
Departmental level	12	43	39	6	1
Faculty or school level	2	17	45	29	7
Institutional level	2	7	29	51	11

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Table 3.25

FACULTY ATTITUDES TOWARD GOVERNANCE (PERCENTAGES)

	AGREE 1	2	NEUTRAL 3	4	DISAGREE 5	NOT APPLICABLE 6
Top-level administrators are providing competent leadership.	2	22	31	27	18	1
I am kept informed about what is going on at this institution.	3	29	30	30	9	1
Communication between the faculty and the administration is poor.	11	39	26	19	3	1
The administration is often autocratic.	15	31	29	19	5	1
Lack of faculty involvement is a real problem.	9	34	29	21	5	2
Students should have a stronger voice in determining policy that affects them.	3	27	31	27	11	1
The administration supports academic freedom.	3	32	36	21	7	2
At this institution I am fully free to determine the content of the courses I teach.	43	46	7	3	1	0
I can focus my research on any topic of special interest to me.	36	48	10	4	1	2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

In Korea, as already noted, university–government relations have been a critical issue of controversy. Professors have always criticized government interference in the governance of their institutions, while the government has insisted upon its right to protect the quality of higher education. Now, Korean higher education seems to be undergoing a gradual paradigmatic transition, shifting from government hegemony to university autonomy, and from autocratic external governance to democratic internal governance. The vast majority of the professors, nearly 90 percent, agree that the government interferes far too much in important academic policies, yet as many as 66 percent say that academic freedom is strongly protected in Korea (table 3.26). Nearly one-half of the respondents indicate that the government should have the responsibility of establishing the overall goals and policies for higher education.

INTERNATIONALIZATION

The international dimension of the academic profession has become increasingly important, along with the growing internationalization in such areas as the economy, the media, and culture. Transnational cooperation in research is expanding, and the mechanisms to promote such global scientific communication are becoming more diverse and sophisticated. The existing international networks of Korean academics are signs of Korean efforts to catch up with advanced knowledge and technology from the developed countries. One way to absorb advanced knowledge and technology is to send students overseas for higher learning. Since World War II, Korea, like other developing countries, has sent significant numbers of students to industrialized countries, particularly to the United States, for advanced learning. Many of those who studied abroad currently hold academic positions at Korean universities. It is a plausible assumption that their experiences while studying abroad would lead foreign-educated academics to maintain close connections with their former host countries and professors, enabling them to participate in coauthored publications, cooperative projects, and other academic exchanges.

The survey data show that more than half of all Korean professors

Table 3.26

FACULTY ATTITUDES TOWARD GOVERNMENT INVOLVEMENT IN HIGHER EDUCATION (PERCENTAGES)

	YES	NO	NOT APPLICABLE
Academic freedom is strongly protected in this country.	66	23	10

	AGREE 1	2	NEUTRAL 3	4	DISAGREE 5	NOT APPLICABLE 6
The government should have the responsibility to define the overall purposes and policies of higher education.	14	36	20	23	7	1
In this country, there is far too much governmental interference in important academic policies.	42	47	8	3	0	0

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

have had no close relationships with foreign institutions or scholars (table 3.27). More than 50 percent have not published any articles or books in another country in the previous three years. During the same period, 75 percent of these faculty have had no opportunity to work jointly with a colleague from another country on a research project, and 93 percent have never taught at foreign institutions. Similarly, international activities conducted at their own institutions have been quite minimal. Foreign academics have seldom taught courses, and international conferences and seminars have rarely been held. In addition, international student exchange is at a minimal level.

Based on the above data, Korean academics appear not to have active communication with academics in other countries, and there are very few foreign students in Korea. However, considering the proportion of foreign-educated Korean faculty to the entire population of Korean academics, the level of international activities is not necessarily insignificant. Among the respondents, while almost 70 percent studied in Korea, 30 percent had the experience of studying abroad. The 30 percent who studied abroad have better opportunities to develop academic relationships with colleagues in other countries because of their previous connections with foreign academics, familiarity with the academic system of their host country, and language skills. This does not mean that only foreign-educated academics can engage in international activities. However, the proportion of foreign-educated academics is an important variable to consider in examining the scope of international activities in Korea and in other developing countries.

Although the overall extent of international actitvities among Korean professors is quite low, they strongly advocate the promotion of international contacts (table 3.28). More than 90 percent of the respondents favor contacts among scholars, greater access to foreign books and journals, student and faculty mobility, and internationalization of the university curriculum. They emphasize that international contacts—for example, overseas sabbaticals—provide opportunities to catch up with advanced scientific knowledge in their fields. Similarly, they advocate policies promoting study abroad for promising students.

The survey asked faculty to rank in importance a number of global

Table 3.27

INTERNATIONAL ACTIVITIES OF FACULTY FOR LAST THREE YEARS (PERCENTAGES)

	NONE	1 OR 2 TIMES	3 OR 4 TIMES	5 OR 6 TIMES	7 OR MORE TIMES
Published articles or books in another country	51	31	12	3	3
Wrote articles or books in a foreign language	38	36	14	6	5
Organized a class for students from another country	89	9	1	1	1

	NONE	1 TO 5 MONTHS	6 MONTHS	7 TO 11 MONTHS	12 MONTHS	13 OR MORE MONTHS
Worked with an academic from another country on a research project	75	10	2	2	8	3
Traveled abroad to study or do research	38	38	5	4	8	6
Served as a faculty member at an institution in another country	93	2	1	1	3	0
Spent a sabbatical abroad	86	2	2	1	8	2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Table 3.28

FACULTY ATTITUDES TOWARD INTERNATIONAL CONNECTIONS IN HIGHER EDUCATION (PERCENTAGES)

	AGREE 1	2	NEUTRAL 3	4	DISAGREE 5	NOT APPLICABLE 6
Connections with scholars in other countries are very important to my professional work.	43	47	8	1	0	1
In order to keep up with developments in my discipline, a scholar must read books and journals published abroad.	68	27	4	1	0	1
Universities and colleges should do more to promote student and faculty mobility from one country to another.	56	37	6	1	0	1
The curriculum at this institution should be more international in focus.	33	42	19	4	0	1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Table 3.29

FACULTY PRIORITIES FOR GOVERNMENT ON GLOBAL ISSUES (PERCENTAGES)

	HIGHEST PRIORITY	HIGH PRIORITY	MEDIUM PRIORITY	LOW PRIORITY
Human rights	25	33	28	14
Basic education	41	28	19	13
World economy	21	45	30	4
Environmental quality	30	32	23	16
Population growth	11	39	39	12
World food supply	6	30	46	18
AIDS and other health issues	14	33	38	15
Racial, ethnic, and religious conflicts	6	17	40	38
Arms control	22	28	31	19

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

issues in need of government attention. It is clear that faculty members would like the government to place a higher priority on those global issues of concern in their home country—such as human rights, basic education, the world economy, environmental quality, and arms control (table 3.29). However, faculty are more indifferent toward global issues that are less serious in their home country. For example, less than 10 percent suggest that their government should assign highest priority to issues such as world food supply or racial, ethnic, and religious conflicts.

Regarding priorities for higher education in Korea, according to our data, faculty give top priority to "promoting scholarship and research" (table 3.30). Following this, Korean professors endorse pursuit of the goals of preparing students for work, protecting free intellectual inquiry, and strengthening the nation's capacity to compete internationally. Lifelong learning for adults and preserving the cultural heritage tend to be given relatively little importance in Korean higher education.

Table 3.30

FACULTY PRIORITIES FOR HIGHER EDUCATION (PERCENTAGES)

	HIGHEST PRIORITY	HIGH PRIORITY	MEDIUM PRIORITY	LOW PRIORITY
Educating students for leadership	22	43	28	7
Preparing students for work	36	48	14	3
Life-long learning for adults	16	36	36	12
Preserving the cultural heritage	17	42	31	10
Protecting free intellectual inquiry	37	41	18	4
Promoting scholarship and research	49	34	14	3
Strengthening the nation's capacity to compete internationally	45	40	13	3
Helping to resolve basic social problems	25	45	24	7

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

Finally, faculty were asked how they felt about the status and role of higher education in Korea. The responses concerning the current status of Korean higher education were generally negative (table 3.31). Nearly one-half of the respondents state that the effectiveness of higher education is being threatened by growing bureaucracies and that respect for academics is declining. Many are receptive to an open-door policy for higher education as long as admission standards are not lowered. They also favor greater contributions by individuals and businesses to higher education in Korea. More than 60 percent believe that academics are still among the most influential opinion leaders in Korea, while in the other countries participating in this study less than 50 percent hold this view.

Table 3.31

PERCEPTIONS OF STATUS, ROLE, AND SUPPORT OF HIGHER EDUCATION (PERCENTAGES)

	AGREE 1	2	NEUTRAL 3	4	DISAGREE 5	NOT APPLICABLE 6
Access to higher education should be available to all who meet minimum entrance requirements.	23	41	13	17	5	0
Admission standards should be lowered to permit disadvantaged students to enroll at this institution.	26	49	14	5	6	1
Academics are among the most influential opinion leaders.	17	46	29	6	2	1
Respect for academics is declining.	15	54	22	5	3	0
Government support for higher education should provide free tuition for all students at public institutions.	8	20	24	34	14	1
Individuals and businesses should be encouraged to contribute more to higher education.	47	47	4	1	0	0
Institutions of higher learning are increasingly subject to interference from special interest groups.	4	26	35	25	9	3
The effectiveness of higher education is being threatened by growing bureaucracies.	10	38	30	15	6	2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Korea).

CONCLUSION

The professors in the Korean academy play a variety of academic and professional roles. As is true of academics elsewhere, the primary functions include instruction, research, public service, and participation in the internal governance of their institutions. Among these responsibilities, instruction and research clearly take precedence and carry equal importance. External public service and internal administrative service are perceived as the next most important duties of faculty members.

Conventional wisdom in Korea holds that faculty prefer research to instruction, but this survey refutes that widely held notion. Most of the respondents place equal emphasis and value on instruction and research. They clearly feel a professional commitment to the central task of teaching but also recognize that research is an activity essential to teaching.

In the aggregate, Korean professors are keenly interested in the conditions within and surrounding their workplace. These working conditions, they believe, affect the quantity and quality of their work and therefore the quality of their lives. Working conditions in the Korean academic profession, however, have been steadily deteriorating. The teaching load has always been too heavy to allow professors to meet their various other responsibilities. Academic salaries have been declining. The pressure to publish has not diminished. The basic physical facilities and support for instruction and research are widely perceived to be inadequate. Financial constraints in many institutions of higher education make it difficult to provide faculty members with adequate monetary compensation. All of these conditions may lower the morale of Korean college and university faculty, and there is, in fact, some evidence that this is occurring.

Nevertheless, it appears that Korean faculty, despite such deteriorating working conditions, remain, en masse, fiercely loyal to their mission. Korean professors find satisfaction in the nature of the work itself, whereas their dissatisfaction centers largely on extrinsic factors such as facilities, salaries, and administration. Their intrinsic motivation is clearly reflected in their attitude toward research. Korean faculty make the point that they conduct research not only in response to external pressure to publish but also out of an internal intellectual need to pursue and develop their own ideas. They place a high value on autonomy, academic freedom, and collegiality, and they are willing to sacrifice financial reward for these values.

On the basis of the data from this survey, one might well conclude that the academic profession in Korea is reasonably sound and healthy. On the whole, professors are well educated, hardworking, productive, self-confident, and positive in outlook, and the academic profession remains, by and large, attractive to its practitioners, continuing to draw some of the most intelligent and ambitious young men and women in Korea. On the other hand, it is difficult to deny that public confidence in the Korean academic profession has begun to fray. By their own admission, professors have already begun to lose the public's respect.

What is the explanation for this trend? As in other countries, the people in the academic profession are usually from that highly talented upper 5 percent of the population. Academics have had a major influence upon the destiny of the nation. Accordingly, the public expects them to set standards of intellectual excellence and moral thinking and behavior in society; not all professors in Korea are able to meet these expectations. The academic body as a whole is suffering from an erosion of intellectual and moral integrity.

An observation should be made about the emphasis on academic indigenousness and Korean professors. As is well known, Korean higher education experienced a long period of Western influence. The predominance of American ideas and practices can be seen in every corner of Korean higher education. Korean faculty members are facing demands for increased academic nationalism while at the same time they are expected to strive to meet standards of excellence comparable to those of the advanced Western countries. To be successful in this task, Korean professors must not fall victim to the exclusively narrow-minded attitude of self-preservation, but must move to establish a fully interdependent academic partnership with their counterparts in the worldwide academic community.

Finally, a note about the political life of Korean professors: since the

1960s, a high level of student activism has characterized Korean campuses. In the 1990s, however, *faculty* activism appears to be the most important of the new intramural issues at Korean colleges and universities. Professors have began to organize their own councils and to raise their voices against the governing boards of their institutions. In many colleges and universities, professors are holding elections to express preferences concerning presidential appointments and to make recommendations to boards with appointive powers. This rising interest in quasi-unionism among academics, its precipitants, and its likely consequences, deserves attention. For one thing, this development testifies to important changes occurring in the larger context of academic life. Yet another reason for special interest in the phenomenon of faculty activism lies in the increasing fragmentation of the academic profession. The professoriate in essence is becoming much more complex and pluralistic. Professors now appear to divide themselves much more sharply along political or ideological lines. This suggests that administration and faculty need to reach a consensus concerning institutional governance and that faculty need to be involved in the difficult choices and decision making inherent in the distribution of scarce finances and resources. Meaningful participation in this internal governance process is extremely important for faculty morale, and steps ought to be taken to promote active faculty involvement in the governance process. The academic profession in Korea promises to build a more solid foundation for national development in the coming century.

Akira Arimoto

THE ACADEMIC PROFESSION IN JAPAN

THIS CHAPTER PRESENTS a sociological analysis of the Japanese academic profession. The focus is on three principal areas: the role of Japanese academic professionals, the structure of the country's system of higher education, and the relationship between higher education and social stratification in Japanese society. It is important to step back and look at how the analysis of the Japanese academic profession has evolved over time. The study of the academic profession is a very recent phenomenon in Japan. In the 1960s, conflicts between university professors and administrators resulted in a weakening of the taboo against making the university itself the object of scholarship. A series of research projects in which universities were examined using a sociological approach yielded valuable insights. This in turn fostered more studies, and sociological analyses of the professoriate, higher education, and science, and gradually led to the establishment of the field often referred to as "sociology of the academic profession."[1]

Burton Clark has referred to the academic profession as "an odd occupation": "[It is] a strange profession indeed, with uniquely intricate features that seem more significant than the usual characteristics attributed to all other leading professions."[2] Clark's observation is quite true with respect to the Japanese academic profession in its present stage. The Japanese academic profession has not yet been clearly defined and analyzed. An integrated view of the profession does not yet exist.[3] Thus, a useful approach to the task of clarifying the role and function of the Japanese professoriate would seem to lie in an international comparative perspective.

In the academic world the centers of learning and peripheral areas are determined according to the levels of scientific or academic productivity.

Regarding the establishment of modern universities, Japan was for many years ranked as a peripheral and developing country before attaining its current scientific and academic standing. Differences within the Japanese professoriate between research universities and what will be referred to as *nonresearch* universities will be explored. The data presented are based on the 1992 Carnegie International Survey of the Academic Profession. The Japanese version of this survey questionnaire consisted of nineteen pages with seventy-four questions. Exactly 4,000 questionnaires were mailed to nineteen universities (four research universities and fifteen nonresearch universities). The number of faculty members responding to the survey was 1,889 (417 from the four research universities and 1,455 from the fifteen nonresearch universities), which yielded a 47.2 percent return rate.[4]

SIZE AND SCOPE OF THE JAPANESE ACADEMIC PROFESSION

Institutional Expansion and Variations

The three basic traits of the Japanese higher education system, especially of its universities, are expansion, diversification, and stratification. The 1960s began a period of expansion in Japanese higher education (table 4.1) and a shift away from the "mass" to the "universal" stage of development.[5] In 1963, 15 percent of the cohort of eighteen-year-olds were enrolled in a college or university. Today, the figure is 40 percent, although only 28 percent of the current age cohort attend a university. According to some estimates, about 60 percent of eighteen-year-olds are currently enrolled in some form of postsecondary education.[6]

Diversification of higher education has led to the creation of various new forms of postsecondary education in Japan. These include institutions such as the short-cycle ***tanki-daigaku*** (junior college), the ***koto-senmon gakko*** (technical college), and the ***senshu gakko*** (special training college). However, amid this diversity, the ***daigaku*** (university) remains the center of learning, teaching, and research in specialized academic disciplines.[7] There were 245 four-year institutions in 1960, a decade after

Table 4.1

UNIVERSITIES AND JUNIOR COLLEGES IN JAPAN, 1950–1994
(NUMBER OF SCHOOLS, FACULTY, STAFF, AND STUDENTS)

	1950	1960	1970	1980	1990	1994
SCHOOLS						
Universities	201	245	382	446	507	552
Junior colleges	149	280	479	517	593	593
FACULTY (THOUSANDS)						
Universities	11	44	76	102	123	135
Junior colleges	2	6	15	16	20	21
ADMINISTRATIVE STAFF (THOUSANDS)						
Universities	–	58	100	143	160	170
Junior colleges	–	2	8	10	12	13
STUDENTS (THOUSANDS)						
Universities	223	626	1,406	1,835	2,133	2,482
Junior colleges	15	83	263	371	479	521

SOURCE: Ministry of Education, Science and Culture, Statistical Survey on Education, 1994.

the postwar reforms were implemented. The number exceeded 300 in 1965, grew to nearly 400 in 1970, and had reached 450 by the early 1980s. As of 1994, there were 552 four-year institutions. Within thirty years, the number of institutions had expanded in number 2.3 times.[8]

There are two main kinds of postsecondary educational institutions: public institutions (consisting of national and municipal sectors) and private institutions. As of 1994, there were 98 national, 48 municipal, and 406 private universities.[9] Private-sector Japanese higher education has increased from 57.1 percent of the system in 1960 to more than 73.6 percent today. The predominance of private institutions is a significant trait of Japanese higher education, as the substantial support given to private institutions has led to great expansion in the system.

A kind of hierarchy of institutions has formed in the university system as a result of diversification and stratification. Generally speaking, the pecking order among institutions is based on a mixture of type, sector, and age. Older public institutions with a background in research are considered more prestigious than the newer, nonresearch, private institutions. The form of institution known as ***kenkyu-daigaku*** (research university) stands at the top of this hierarchy today.

In 1886, the first ***teikoku daigaku*** (imperial university) was established in Tokyo by the national government as the first Western-style modern university. Thus a model of the modern Western university—specifically, the German university—was introduced into Japan, which led to the establishment of a number of similar institutions by both individuals and the government. A cluster of seven ***teikoku daigaku*** were established by the national government. These were (in chronological order) the universities in Tokyo, Kyoto, Tohoku, Kyushu, Hokkaido, Osaka, and Nagoya. These national institutions became the most prestigious bases for advanced research and education in Japan, and remain so today. "Catching up to the academic level of the West" became an institutional obligation, leading to a serious commitment to research and scholarship. Thus, the emphasis on research over teaching was built into the system at an early stage, a development that has had a number of effects, as will be discussed later in this chapter. Newer institutions of higher education, even nonresearch universities and colleges, followed the ideals of the imperial universities.

By 1947, the postwar reforms were having an impact on higher education in a number of ways. First, imperial universities were given the name ***daigaku***, which was then applied to all universities, in the spirit of democracy. An enlarged pyramid-like organizational structure evolved over time to encompass all institutions of higher education, with the prestigious (formerly imperial) universities at its summit, followed by the traditional national public and private universities somewhere in the middle, and the newly established institutions occupying the lowest tier.[10] The types of research and nonresearch activities performed by each institution have also led to further differentiation. As of 1990, thirty universities, or 5.9 percent of all universities, were identified as research universities (comparable to the Carnegie classification of "research university I," in the United States). Among these, nineteen institutions (sixteen national and three municipal), or 63.3 percent, belong to the public sector, while eleven belong to the private sector.[11]

Given the history of academic stratification and hierarchy in Japanese higher education, it is appropriate to sample the two types of universities, research and nonresearch, which represent the basic institutional typology of Japanese higher education. Of nineteen institutions sampled, four (three national and one private) were research universities, while fifteen (four national and eleven private) were nonresearch institutions.[12]

Growth and Characteristics of the Profession

The professoriate naturally grew in number and diversity at the same time as the institutions of higher education were undergoing their postwar expansion and restructuring.

A great deal of expansion has occurred, particularly in the private sector and in nonresearch universities, the majority of which are private. From 1960 to 1994, the size of the professoriate as a whole increased 3.1 times (4.6 times in the private sector and 2.2 times in the public sector).

The professoriate in the public sector shows an even stronger emphasis on research. In fact, the absolute number of academic staff teaching at graduate schools in the public sector is twice as large as the number of their research colleagues in the private sector. As of 1991, a majority of faculty at public universities were involved in research: 63.9 percent at national institutions and 53.9 percent at municipal institutions, compared with only 27.7 percent of the faculty at private institutions.[13] The public sector has been taking substantially more responsibility for graduate education than has the private sector, although Japanese graduate education has maintained a slow but constant rate of development. During the expansion in higher education, a differentiation of roles occurred between the two types of institutions, research and nonresearch, and, consequently, also between the public and private sectors. These are some of the underlying factors in the current preference for research over teaching in Japanese higher education. It should be noted that the importance of teaching is often overlooked in both sectors, and at both types of institutions. This is most problematic at nonresearch institutions, where the need for undergraduate education grew exponentially during the "massification" and "universal" expansion stages.

Academic mobility, as well as academic drift, have historically been restricted to a small percentage of the professoriate, although this has been changing as the system and the academic profession expand. The academic marketplace still retains the traditional rigid structure of social immobility, with a clear separation between the dominant institutions and other institutions.[14] One consequence of this structure is the phenomenon of academic nepotism and inbreeding, or the custom of recruiting an institution's academic staff from among its own graduates, which exists at the prestigious research universities. As the Daigaku Shingikai (university council) notes in its recent report, the proportion of faculty recruited in this way was only 36 percent for all four-year institutions in 1993, but the amount sometimes exceeds 70 or 80 percent in the more elite research universities.[15] Increasing diversification is one of the traits of the Japanese academic system. We find differentiation between research and nonresearch institutions, and differentiation between the public and private sectors. Despite changing patterns of academic mobility and drift, the existence of rigid institutional hierarchy can still be found.

In Japan, the existence of a closed academic structure is shown by the fact that both female and foreign professors still constitute but a small proportion of the entire faculty population. As of 1990, 90.8 percent of all faculty (123,838) were male, while only 9.2 percent were female (table 4.2).[16] Of the respondents in the recent Carnegie survey, 7.9 percent were female. There are fewer female faculty in research universities and in the upper ranks across institutions. In Japan, women's representation in academe has improved substantially since 1955, when only 5.2 percent of faculty were women, but the figures are still low from an international perspective. Some notable examples of countries with higher proportions of female faculty are Brazil (39 percent), Mexico (36 percent), the United

Table 4.2

PROFILE OF THE PROFESSORIATE, BY SEX AND AGE (PERCENTAGES)

	TOTAL ACADEMIC POPULATION	CARNEGIE STUDY RESPONDENTS
SEX		
Female	9.2	7.9
Male	90.8	92.1
(N)	(91,609)	(1,872)
AGE		
35 and under	19.0	5.2
36–45	31.9	25.7
46–55	24.7	38.3
56–65	19.6	26.1
66 and over	4.8	4.7

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan); and Ministry of Education, *Tokei: Yoran* (Educational statistics) (Tokyo: Daiichi Hoki Shuppan, 1992).

States (30 percent), the United Kingdom (23 percent), Germany (17 percent), and Korea (13 percent). There are fewer female professors in senior academic positions as well. According to Monbusho's 1992 study, of female academics responding, 4.2 percent were presidents, 1.2 percent vice presidents, 5.1 percent professors, 8.4 percent associate professors, 12.3 percent lecturers, and 14.4 percent assistants.[17]

In the university sector, 1.9 percent of the professoriate are foreigners, compared to 2.9 percent of professors in *tanki-daigaku* institutions.[18] These figures seem to reveal a dominance of localism over internationalism in the academic profession.

Demographic Profile of the Profession

In this chapter, the data from the 1992 survey are analyzed with regard to the Japanese professoriate by adopting three basic indices: institutions, academic disciplines, and ranks. The data reveal important distinctions between types of institutions. Also of interest are the findings concerning the professoriate with regard to major field, rank, age, social class origin, highest earned degree, work experience, and income and benefits.

Table 4.3 shows faculty distribution among the major fields (disciplines) within the general academic profession and within the sample. For most disciplines the percentage of faculty in the sample corresponds fairly well with that of the academic profession as a whole. However, in the fields of medicine and dentistry, the sample yielded a smaller representation, probably owing to the fact that there were fewer respondents than expected from among senior academics in those fields.

Full-time faculty in Japanese institutions of higher education hold one of four academic ranks: ***joshu*** (assistant), ***kousi*** (assistant professor or lecturer), ***jokyouju*** (associate professor), and ***kyouju*** (full professor). This survey covered all ranks except that of assistant, which was not sampled here.

Japanese faculty members are unevenly distributed among the age cohorts (table 4.2). The average age of the respondents is higher than that of the population at large. One reason for this might be the exclusion from the study of assistants, who tend to be the youngest members of the profession. The statistical mean birth year of all respondents was 1941, and the mean age was 51 years. Along with Russia, Japan has the oldest professoriate.

A respondent's father's educational achievement was used as a measure of social class origin. Those whose fathers graduated from institutions of higher education *(**tanki-daigaku**, **daigaku**,* graduate schools, etc.) made up 51 percent of the sample. This is much higher than a comparable figure in the 1985 data presented by the Japanese Sociological Association, which showed only 8.9 percent of the general population with a similar social class origin.[19]

Almost all faculty in the Carnegie survey have completed a higher

Table 4.3

PROFILE OF THE PROFESSORIATE, BY DISCIPLINE (PERCENTAGES)

	TOTAL ACADEMIC POPULATION	CARNEGIE STUDY RESPONDENTS
Humanities	15.8	10.0
Social sciences	11.0	9.5
Natural sciences	11.3	12.4
Engineering	16.1	22.3
Agriculture	4.9	5.6
Health/medical sciences	30.6	13.5
Fine arts	2.8	6.9
Education	6.1	12.5
Others	1.4	7.3
(N)	(91,609)	(1,819)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan); and Ministry of Education, *Tokei: Yoran* (Educational statistics) (Tokyo: Daiichi Hoki Shuppan, 1992).

degree, which is a much higher representation than in the whole general population (25.5 percent), as shown by the 1985 national survey.[20] Furthermore, 57 percent of professors hold a Ph.D., with a wide variation among institutions, fields, and ranks. A strikingly significant number of respondents with Ph.D. degrees were found in the natural sciences, as compared to faculty in the humanities and social sciences. One reason is that there are more doctoral programs offered in the natural sciences than in the humanities and social sciences. Thus, the demand for faculty with Ph.D. degrees is higher in those fields where doctoral programs are more common. With regard to institution type, the percentage of doctorates in the research universities (85 percent) is almost twice as high as that in other universities (49 percent). Most faculty (94 percent) received their highest degrees from a Japanese institution—4 percent received degrees in the United States, and the rest in other countries.

The Japanese faculty members we surveyed have, on average, 17.1 years of work experience both in and outside academe. Three-quarters of the respondents report that they had worked less than five years in a nonacademic institution, and almost half (49 percent) report never having been employed outside the academy. The fact that most of the faculty have work experience in a single institution is a reflection of Japan's closed academic structure and relative lack of academic mobility.

Salary at each academic rank and subrank is essentially the same at all national universities, where academics are in effect civil servants. The same is true at municipal universities, although the average salary in this sector is better than in the national sector. Salaries vary greatly among the private institutions, particularly at the large and prestigious institutions.

In addition to the salary they earn from their own institutions, which amounts to 95 percent of their total income, faculty members have various minor income sources. According to our data, 28 percent of faculty members earn between $70,000 and $84,999 in an academic year, followed by 24 percent in the $55,000 to $69,999 range, and 20 percent in the $85,000 to $99,999 range. Approximately 11 percent of all respondents earn $100,000 or more from all sources. The percentage distribution is almost the same in the two types of institutions: 64 percent of faculty at research institutions earn more than $70,000, with 58 percent at nonresearch institutions at that income level. Income levels show the same distribution in the various disciplines, with the exception of medicine and dentistry, where 14 percent earn more than $100,000. There are variations among ranks. For example, 81 percent of professors earn over $70,000, compared with 34 percent of associate professors and 27 percent of assistant professors. The amount of fringe benefits equivalent to monetary compensation depends on the individual institution. Some universities provide faculty with benefits—including retirement stipend, travel funds, medical insurance, residence subsidy—whereas other institutions provide no such programs (for further responses concerning salary and fringe benefits, see table 4.21).

PROFESSIONAL ACTIVITY

Workload and Time Use

The professional work of faculty is usually divided into teaching, research, service, and administration. Almost all work carried out by academics falls within these four areas. Faculty enjoy quite a bit of autonomy in how they use their time for their professional work. On average, faculty teach nine to ten unit-hours a week and work forty-seven hours per week during the academic year, and forty-one hours per week during vacation periods. The allocation of time during the week is as follows: nineteen hours for teaching, twenty hours for research, two hours for service work, four hours for administration, and two hours for other duties. Teaching and research are the most important responsibilities for them—thirty-nine hours, or 83 percent of their weekly workload, are spent exclusively on these two activities.

There are differences between research and non-research types of institutions with regard to number of hours spent on teaching when classes are in session—twelve hours for professors at the former, and twenty hours at the latter. However, time spent on research is the same—professors spend twenty hours per week at either type of institution when classes are in session. Regarding work content, a sizable difference can be found between the academic year and vacation time. Namely, while professors spend roughly equal amounts of time on research and teaching during the academic year, 73 percent (twenty-nine hours) of their time during vacation is spent solely on research. This is the case for faculty at both research and nonresearch universities, suggesting that Japanese professors at both types of institutions concentrate on research during vacation periods.

Research

Faculty members belong, on average, to at least four national scientific or professional associations. The frequency of their participation in such activities outside their campuses during the previous three years amounts to seven times a year (ten in research, and six in nonresearch institutions). Accordingly, it can be said that Japanese professors are strongly committed to professional organizations and participate actively in the Japanese academic community. Japanese professors on average hold one membership in an international professional society.

Research involvement among faculty members can be measured by looking at their responses to questions on their commitment and preference regarding work roles. Professors are more committed to their academic disciplines (97 percent), as compared to their departments (85 percent) or institutions (79 percent) (table 4.4). There are no substantial variations between the two types of institutions in this respect. Furthermore, 17 percent of professors have a strong preference for research over teaching; 55 percent of those surveyed report that their interests lean more heavily toward research (table 4.5). This was true of 90.4 percent of professors at research universities, and an unexpectedly high figure of 67.3 percent at nonresearch universities. It is notable that the average of 72 percent who prefer research is the second highest among the countries in this survey (the Netherlands being 75 percent). Japanese academics show a stronger preference for research than do their counterparts in such countries as Sweden (67 percent), Israel (62 percent), Korea (56 percent), and England (56 percent). Historically, Japan imported the model of the German research university, and the data indicate that this research orientation is still well established. Japan and the United States are comparable in that both are at the "mass stage" of higher education, but the U.S. preference for research (37 percent) is far lower than in Japan. These trends show that in Japan research is institutionalized as a central activity at both research and nonresearch institutions and that faculty members are more committed to their own disciplines, as researchers, than to their departments or institutions, as teachers.

A climate conducive to research is preferred by faculty, particularly those in the natural sciences at research universities (table 4.6). Eighty percent of faculty members agree that engaging in regular research activity is important for faculty evaluation at their institutions. These results show that publications are considered among academics to be of

Table 4.4

IMPORTANCE OF ACADEMIC DISCIPLINE, INSTITUTION, AND DEPARTMENT TO FACULTY (PERCENTAGES)

	VERY IMPORTANT	FAIRLY IMPORTANT	NOT TOO IMPORTANT	NOT AT ALL IMPORTANT
Academic discipline	69	28	3	0
Institution	31	48	19	2
Department	39	46	13	2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

Table 4.5

PREFERENCE FOR TEACHING OR RESEARCH

	PERCENTAGE
Primarily teaching	4
In both, but leaning toward teaching	24
In both, but leaning toward research	55
Primarily research	17

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

the highest importance. A culture of research orientation exists and is deeply internalized among most academics. In addition, slightly more than half of the respondents report that there are no political and ideological regulations in Japan when scholars publish books or articles.

How much, then, do Japanese faculty members contribute through

Table 4.6

FACULTY ATTITUDES TOWARD RESEARCH (PERCENTAGES)

	AGREE 1	2	NEUTRAL/ NO INFLUENCE 3	4	DISAGREE 5	NOT APPLICABLE 6
A strong record of successful research activity is important in faculty evaluation at this institution.	49	31	14	3	4	0
In my department it is difficult for a person to achieve tenure if he or she does not publish.	21	13	17	3	18	29
At this institution publications used for promotion decisions are just "counted," not qualitatively evaluated.	19	24	26	10	15	6
I frequently feel under pressure to do more research than I actually would like to do.	14	22	30	10	21	3
In this country, there are no political or ideological restrictions on what a scholar may publish.	30	21	25	10	7	7
Research funding in my field is easier to get now than it was five years ago.	11	15	47	9	14	5
In my academic position at this institution, regular research activity is expected.	33	29	27	4	4	3
A scholar's international connections are important in faculty evaluation at this institution.	31	32	25	4	6	3

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

their research? On average, a Japanese faculty member writes 1.4 academic books, edits 0.4 books, publishes 6.7 papers in academic journals, publishes 1.7 monographs, and presents papers 6.4 times at academic conferences (table 4.7). Depending on the activity, however, the figures vary extensively. Faculty at research universities publish 11 articles in academic journals, while those at nonresearch universities publish 5.4 articles. At academic conferences, the former present papers 9.5 times, while the latter present papers 5.4 times.[21] A professor at a research university is more productive in all areas except artistic work. Generally, a professor is more productive than an associate professor or assistant professor.

As for the number of academic papers produced in each specialized field, the following data are available (per professor in each field, per three years): 10 papers in medicine and dentistry, 6 in agriculture, 6 in engineering, 3 in the humanities, and 1 in the arts. Academics in the arts perform or exhibit artistic work an average of 7 times a year, which is relatively high compared with the low level of publications in this field.

Professors in research universities, particularly in the natural sciences, are more productive in research on this quantitative scale. This trend may reflect the climate in the natural sciences at research universities, where professors organize research projects with their junior staff and students, often producing papers in collaboration with the latter. If research is of prime importance among professors, as has been observed thus far, what are the main factors that keep faculty members from doing research? The factors reported by faculty as having the strongest negative influence on research include administrative work (47 percent), number of courses assigned to teach (36 percent), and the number of students they are assigned to teach (27 percent). At the same time, the factors having a positive influence include availability of research funds (47 percent), laboratory facilities (44 percent), and outside professional activities (38 percent) (table 4.8).

As for research funds, about 60 percent of academics are engaged in their own research projects, and 73 percent have received grants for individual or collaborative research projects in the previous three years. This figure is likely to be higher than in most of the other countries

Table 4.7

NUMBER OF RESEARCH ACTIVITIES AND PUBLICATIONS IN THE LAST THREE YEARS (BY ACADEMIC RANK AND INSTITUTION TYPE)

	ACADEMIC RANK				INSTITUTION TYPE	
	FULL PROFESSOR	ASSOCIATE PROFESSOR	ASSISTANT PROFESSOR	TOTAL	RESEARCH UNIVERSITY	OTHERS
Scholarly book authored	1.5	1.4	1.3	1.4	1.8	1.3
Scholarly book edited	0.6	0.3	0.1	0.4	0.6	0.4
Article in an academic book or journal	6.8	6.8	6.0	6.7	11.0	5.4
Report or monograph for funded project	1.8	1.5	1.2	1.7	2.4	1.5
Paper presented at a scholarly conference	6.1	6.7	6.7	6.4	9.5	5.4
Professional article for a newspaper or magazine	2.1	1.5	1.3	1.8	2.0	1.7
Patent secured on a process or invention	0.2	0.1	0.3	0.2	0.3	0.1
Computer program for public use	0.1	0.1	0.1	0.1	0.1	0.1
Artistic work performed or exhibited	1.3	1.0	0.9	1.1	0.6	1.3
Video or film produced	0.2	0.1	0.2	0.2	0.2	0.2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

Notes: Not included are presidents, vice presidents, research associates, and others. Extreme answers were omitted from the calculations.

Table 4.8

CONDITIONS AFFECTING RESEARCH (PERCENTAGES)

	STRONG POSITIVE INFLUENCE 1	2	NEUTRAL/ NO INFLUENCE 3	4	STRONG NEGATIVE INFLUENCE 5	NOT APPLICABLE 6
Availability of research funding	24	23	32	9	8	5
Facilities and resources for research here	22	22	29	14	9	3
The number of courses assigned to teach	5	9	45	25	11	5
The kinds of courses assigned to teach	5	13	53	18	6	6
The number of students enrolled in my classes	3	6	58	19	8	6
The quality of students available as research assistants	9	16	31	7	2	35
The amount of student advising I do	5	14	45	19	7	10
My nonacademic professional activities	13	25	42	7	2	11
My administrative work	3	5	35	27	20	11

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

surveyed, for in Japan, scholars are apt to see themselves as researchers and are often able to obtain research funding. Grant resources are allocated to faculty from government agencies and individual institutions. More than half of the respondents have had grants totaling less than $25,000, while 13 percent have received $100,000 or more (27 percent at research and 6 percent at nonresearch universities) (table 4.9). Variations are also seen among the disciplines, with a higher share of research funds of $100,000 or more going to professors in the natural sciences. The breakdown among disciplines receiving research moneys is as follows: 3.1 percent in the humanities, 1.6 percent in the social sciences, 18.2 percent in engineering, 13.9 percent in the sciences, 14.6 percent in agriculture, 17.9 percent in medicine and dentistry, and less than 1.0 percent in the arts and physical education. Full professors receive the lion's share of these resources (15.9 percent), followed by associate professors (8.1 percent), and assistant professors (7.9 percent).

In essence, more research funding goes to full professors in the natural sciences who work at research universities. If generous funding is a condition for promoting research, the same group—full professors in the natural sciences, at research universities—also enjoy the most favorable position. It is correct to say that there is a correlation between funding and research productivity, since groups that have higher research funding also have the highest rates of productivity.

Teaching

While almost all Japanese professors (99 percent) engage in teaching, two-thirds (60 percent) teach at both undergraduate and graduate levels, and only one-third (37 percent) teach solely at the undergraduate level. Only 2 percent teach graduate and professional students only. Despite the importance attached to teaching, most academic staff seem not to give highest priority to teaching in their academic careers, as seen in their primary preference for research. Regarding evaluation of teaching, less than half of Japanese professors (45 percent) reply positively to the question "Is your teaching regularly evaluated?" From an international perspective, Japan's positive response rate on this question is slightly

Table 4.9

RESEARCH FUNDING IN THE LAST THREE YEARS

	PERCENTAGES
RECEIVED RESEARCH FUNDS	
Yes	73
No	27
SOURCES OF RESEARCH FUNDS	
This institution	30
Government	38
Business firms	18
Private foundations	17
International organizations	1
Others	2
AMOUNT OF RESEARCH FUNDS	
Less than $ 5,000	23
$ 5,000 – $ 24,999	36
$ 25,000 – $ 49,999	16
$ 50,000 – $ 99,999	13
$100,000 – $249,999	9
$250,000 – $499,999	2
$500,000 or more	2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

Note: Column percentages in the source of research funds do not equal 100 because the respondents were asked to circle all that applied to them.

higher than Germany's (42 percent), but much lower than the international average of 80 percent.

Beyond the issues of preference for research over teaching and

Table 4.10

ALLOCATION OF CLASS TIME IN INTRODUCTORY COURSES, BY TYPE OF INSTRUCTION (PERCENTAGES)

	LECTURE	DISCUSSION	LABORATORY	OTHER
0–19 percent	9	85	65	86
20–39 percent	10	9	12	6
40–59 percent	16	4	11	4
60–79 percent	14	2	6	2
80–100 percent	52	1	6	3

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

attitudes toward the evaluation of teaching, the survey highlighted a number of other points of concern regarding teaching content and methods. Sixty-six percent of faculty members report that more than 60 percent of the time they teach their students through lectures, a traditional teaching method (table 4.10); this is the case in all disciplines, at both types of universities, research and nonresearch, except in physical education and the arts, where other methods are dominant. These findings reflect the widespread reliance on this teaching method. In fact, the Ministry of Education has been compelled to recommend that each university undertake teaching method innovations by introducing devices such as small classes, seminars, and discussion in classrooms.

Faculty responses reveal a rather negative attitude toward the abilities of today's student population (table 4.11). As many as 42 percent of faculty are critical of students' written and oral communication skills, as well as their mathematics and quantitative reasoning skills. Moreover, 59 percent of faculty agree with the statement that "students do just enough to get by academically." Only 13 percent believe that "present students are more studious" than the students they had five years previously. As a group, academics are of the opinion that student quality is declining in nonresearch universities, in engineering and the sciences, and among the

Table 4.11

FACULTY ATTITUDES TOWARD STUDENTS (PERCENTAGES)

	AGREE 1	2	NEUTRAL 3	4	DISAGREE 5	NOT APPLICABLE 6
Students are adequately prepared in written and oral communication skills.	9	21	27	28	14	2
Students are adequately prepared in mathematics and quantitative reasoning skills.	5	17	32	30	13	5
Students do just enough to get by academically.	23	36	25	9	5	2
Students are willing to cheat to get good grades.	4	13	32	17	29	7
Students are more studious than those I had five years ago.	4	9	45	20	19	4
Faculty should spend more time with students outside the classroom.	23	35	32	4	4	2

Source: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

junior ranks of undergraduates. It is not so difficult for us to read in the trend toward mass education that the negative effects reach both types of institutions, although they are more pronounced in the nonresearch universities. It seems clear that greater attention should be devoted to teaching and its reform.

The effectiveness of teaching is influenced by many factors (table 4.12). Among the major influences on teaching that faculty consider more negative are administrative work (39 percent) and the number of students enrolled in classes (31 percent). On the other hand, they report a positive influence from their research commitments (39 percent) and their nonacademic professional activities (29 percent). Since the responses are almost identical in both types of university in this regard, research commitment is likely to be less of a hindrance for teaching among many faculty members. Student ability is another factor that very likely has an impact on teaching effectiveness.

It is not an oversimplification to say that in Japan, according to the data, professors have been socialized within a research-oriented system—and one that rewards research over teaching. It is the case that Japanese academics feel more involved in research than in teaching, and that they are, in fact, among the most research-oriented professors in the Carnegie survey. This perspective presents a considerable challenge to the Ministry of Education and others who are stressing the importance of teaching.

Japanese academics were asked a number of questions concerning facilities for academic work, the preparation of students, and related issues. For example, respondents were asked: "At this institution, how would you evaluate the following facilities, resources, or personnel you need to support your work?" and "How would you rate the academic preparation of students in your department at this institution?" The responses to these questions reveal that faculty members are discontent with their educational environment—including facilities, equipment, personnel, and students—as well as with their salary and income (table 4.13). These attitudes would suggest the existence of considerable dissatisfaction and low morale among faculty. Thus, contrary to this supposition, it is surprising to note the level of positive responses to questions more specifically regarding faculty morale. Respondents rate the

Table 4.12

INFLUENCE OF VARIOUS CIRCUMSTANCES ON TEACHING (PERCENTAGES)

	STRONG POSITIVE INFLUENCE 1	2	NEUTRAL/ NO INFLUENCE 3	4	STRONG NEGATIVE INFLUENCE 5	NOT APPLICABLE 6
Number of classes assigned to teach	8	16	44	18	8	6
Number of students enrolled in my classes	5	13	48	19	12	5
Amount of student advising	6	17	41	21	11	5
Administrative work	3	8	42	24	15	8
Research commitments	14	25	41	11	4	6
Teaching facilities and resources	7	17	41	23	8	3
Nonacademic professional activities	10	19	48	11	3	9

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

Table 4.13

FACULTY OPINIONS ON SELECTED ASPECTS OF THE JOB (MEAN NUMBERS)

	RESEARCH UNIVERSITY	OTHER UNIVERSITIES	ALL FACULTY
SALARY			
Your current academic salary	3.5	3.3	3.3
Prospects for improvement in your academic salary in the coming five years	3.6	3.3	3.4
BENEFITS AND CONDITIONS AFFECTING ACADEMIC LIFE			
The intellectual atmosphere	2.3	3.0	2.8
Relationships between faculty and administration	2.7	3.0	2.9
Faculty morale	2.4	2.9	2.8
Clarity of the institutional mission	2.6	3.0	2.9
Sense of community	2.8	3.0	2.9
Retirement arrangements	3.3	3.2	3.2
Paid sabbatical leaves	3.6	3.3	3.4
Travel funds for academics	3.8	3.5	3.6
Other fringe benefits	3.4	3.2	3.2
FACILITIES			
Classrooms	3.3	3.2	3.2
Technology for teaching	3.4	3.2	3.2
Laboratories	3.5	3.3	3.4
Research equipment and instruments	3.3	3.3	3.3
Computer facilities	2.9	2.9	2.9
Library holdings	2.8	2.9	2.9
Faculty offices	3.3	3.2	3.2
Secretarial support	3.4	3.3	3.3

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

Note: Not included are presidents, vice presidents, research associates, and others.

1 = excellent; 2 = good; 3 = fair; 4 = poor

intellectual atmosphere fairly highly, with faculty at research universities giving more favorable responses than those at nonresearch universities. Japanese professors, especially those at research universities, are likely to describe faculty morale at their own institutions as high.

External Service

This category includes the professional, public, and research activities in which faculty members are involved. One-third of Japanese faculty work with local government bodies, while one-fourth work in business or industry. Few of them have experience with working in international government bodies or other international associations.

Nearly half the survey respondents (46 percent) report that less than 20 percent of their time is devoted to external services for which they are paid. Japanese academics seem to have a positive attitude toward such external activities, regarding them as key functions. External service activity, however, is not considered to be more important than teaching and research.

Administration

In addition to their duties of teaching, research, and external service, professors are called upon to play a role in internal governance. The types of administrative work in which they participate varies from institution to institution.

In general, Japanese professors perceive the administration of their institutions to be partly centralized and partly decentralized (table 4.14). Nearly three-fifths of them (58 percent) believe that the top administrators have the power to determine budget priorities, with 44 percent of professors at research institutions and 62 percent of those at nonresearch institutions responding in this manner. However, both centralized and decentralized patterns of governance are believed to be involved concerning such matters as selecting key administrators, making faculty promotion and tenure decisions, and approving new academic programs. Academics do participate to a considerable degree in choosing new

Table 4.14

CENTRALIZED AND DECENTRALIZED GOVERNANCE (PERCENTAGES)

	CENTRALIZED 1	2	3	4	DECENTRALIZED 5	DON'T KNOW
Selecting key administrators	35	7	8	8	36	5
Choosing new faculty	16	13	16	11	39	6
Making faculty promotion and tenure decisions	18	15	15	10	33	8
Determining budget priorities	40	18	14	7	14	7
Determining the overall teaching load of faculty	14	12	23	13	32	7
Setting admission standards for undergraduate students	21	14	17	11	31	8
Approving new academic programs	19	15	19	11	28	8

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

faculty, determining overall teaching loads, and setting admission standards for undergraduate students. They enjoy a substantial involvement in the decision-making process through the chair system and departmental representation. Centralization in governance is more likely to be reported by faculty at nonresearch universities and in the junior ranks.

Turning to professors' attitudes regarding administration, decision-making, and academic freedom at their institutions, two important findings emerge (table 4.15). First, a significant number of Japanese professors think that their institutions are administered in a somewhat autocratic way. Second, Japanese professors are, nevertheless, of the opinion that their institutions support academic freedom. Eighty-six percent of faculty members agree with the statement, "I can focus my research on any topic of special interest to me." Eighty percent agree with the statement, "I am fully free to determine the content of the courses I teach." In addition to these responses, 67 percent confirm the proposition that "the administration supports academic freedom."

International Academic Activities

Internationalism is one of the key issues facing Japanese higher education. As Joseph Ben-David has written, for many years Japan was thought to be a country peripheral to the centers of learning in the world; a number of studies support this view.[23] However, in recent years Japanese academics, as well as Japanese institutions of higher education, have come to be ranked among the centers of learning in some academic disciplines in terms of academic productivity, especially in the natural sciences. The visibility of Japanese scholars and institutions in the international scientific (or academic) community is a testament to the fact that the Japanese academic system and scholarly activity are gradually achieving the goals set by the academic policy of a century before, when the first university was founded with the determination to "catch up" with the academic levels of the West.

We asked questions about the participation of Japanese professors in international academic activities during the previous ten years (table 4.16). Nearly half (47 percent) of the respondents have not published in

Table 4.15

FACULTY ATTITUDES TOWARD GOVERNANCE (PERCENTAGES)

	AGREE 1	2	NEUTRAL/ NO INFLUENCE 3	4	DISAGREE 5	NOT APPLICABLE 6
Top-level administrators provide competent leadership.	31	28	21	8	10	3
I am kept informed about what is going on at this institution.	7	23	33	17	18	2
Communication between the faculty and the administration is poor.	19	22	36	14	5	5
The administration is often autocratic.	17	21	32	10	14	6
Lack of faculty involvement is a real problem.	13	17	33	11	16	11
Students should have a stronger voice in determining policy that affects them.	11	22	38	12	14	4
The administration supports academic freedom.	36	31	22	3	3	5
At this institution, I am fully free to determine the content of the courses I teach.	51	29	13	4	3	1
I can focus my research on any topic of special interest to me.	59	27	8	3	2	1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

Table 4.16

INTERNATIONAL ACTIVITIES OF FACULTY FOR THE PAST TEN YEARS (PERCENTAGES)

	NONE	1–2 MONTHS	3–4 MONTHS	5–6 MONTHS	7 OR MORE MONTHS
Worked with an academic from another country on a research project	63	7	6	4	21
Traveled abroad to study or do research	28	20	13	8	31
Served as a faculty member at an institution in another country	84	3	1	1	10
	NONE	1 OR 2 TIMES	3 OR 4 TIMES	5 OR 6 TIMES	7 OR MORE TIMES
Published articles or books in another country	47	16	9	7	21

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

foreign countries; about 84 percent have never served as a faculty member abroad; 63 percent have never engaged in collaborative research with foreign researchers. In terms of international exposure, these are not positive findings. However, certain positive signs can be detected among some groups of academics. For example, professors at research universities have published fifteen times in foreign countries (three for those at nonresearch institutions). The fields of medicine, dentistry, agriculture, and engineering were better represented than others. Full professors and associate professors have had more experience with international publishing and contacts than have assistant professors. As a group, academics at research universities, in the natural sciences, and with the rank of full professor have been more involved in international activities than have their colleagues.

International activities are gradually developing on the respondents' campuses (table 4.17). Seventy-two percent of the respondents report that foreign faculty teach at their institutions, and 57 percent confirm that their institutions offer international seminars. The international exchange of students is also encouraged at most institutions, with 85 percent reporting that during the past three years "foreign students have been enrolled" and 78 percent that "our students have studied abroad." These are indications that international exchanges are steadily increasing at the student level. Such exchanges remain in the developmental stage among faculty—especially at nonresearch universities, where there are fewer international contacts. The phenomenon of knowledge "importation" is far more dominant than that of "exportation."

Japanese faculty members strongly support international exchange activities at their institutions. In numbers exceeding 85 percent, respondents agree with the following statements: "connections with scholars in other countries are important," "a scholar must read books and journals published abroad," and "universities and colleges should do more to promote student and faculty mobility from one country to another." They agree (67 percent) with the statement that "the curriculum at this institution should be more international in focus." This response is more widespread at research universities than at nonresearch ones. Faculty attitudes toward international connections are presented by rank and institution type in table 4.18.

Job and Career Satisfaction

Professors have fairly well-established role expectations, although they may experience some difficulties in fulfilling these expectations. Japanese academics share a relatively positive outlook concerning their careers, as shown in their stated satisfaction with the courses they teach, relationships with colleagues, job security, prospects for promotion, and job

Table 4.17

INTERNATIONAL ACTIVITIES AT HOME INSTITUTIONS FOR THE PAST THREE YEARS (PERCENTAGES)

	FREQUENTLY	OCCASIONALLY	RARELY	NEVER	DON'T KNOW
Foreign academics have taught courses	40	32	11	11	7
International conferences and seminars have been held	21	36	19	15	9
Foreign students have been enrolled	57	28	10	3	2
Our students have studied abroad	51	27	13	5	5

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

Table 4.18

FACULTY ATTITUDES TOWARD INTERNATIONAL CONNECTIONS IN HIGHER EDUCATION, BY RANK AND TYPE OF INSTITUTION (MEAN NUMBERS)

	RANK				TYPE OF INSTITUTION	
	FULL PROFESSOR	ASSOCIATE PROFESSOR	ASSISTANT PROFESSOR	TOTAL	RESEARCH UNIVERSITY	OTHER UNIVERSITIES
Connections with scholars in other countries are very important to my professional work.	1.5	1.5	1.5	1.5	1.4	1.6
In order to keep up with developments in my discipline, a scholar must read books and journals published abroad.	1.3	1.3	1.2	1.3	1.2	1.4
Universities and colleges should do more to promote student and faculty mobility from one country to another.	1.6	1.6	1.5	1.5	1.5	1.6
The curriculum at this institution should be more international in focus.	2.0	2.0	2.0	2.0	1.9	2.0

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

Note: Does not include presidents, vice-presidents, research associates, and others.

1 = agree; 3 = neutral; 5 = disagree

situation as a whole. Faculty members also have rather positive attitudes toward their own academic discipline.

Four survey items were devised to solicit opinions on the subject of career satisfaction (table 4.19). Most faculty members (63 percent) agree with the statement, "This is an especially creative and productive time in my field." There is not much difference between faculty at the two different types of institution (64 percent at research versus 61 percent at nonresearch institutions), but more positive answers are obtained from faculty in the humanities, engineering, agriculture, medicine, and dentistry, while more negative answers appear from faculty in the arts and sciences. In addition, most faculty members (61 percent) disagree with the item, "This is a poor time for any young person to begin an academic career in my field." Responses varied by field, with the highest proportion in disagreement with the statement in the social sciences (68 percent), the sciences (69 percent), engineering (64 percent), and medicine and dentistry (68 percent). Relatively high disagreement to this statement was also noted at research institutions (67 percent).

Studies conducted by the Japan Sociological Society once every five years have shown that the prestige of the university professor has declined in Japanese society. However, the academic profession still retains a high occupational prestige score (83.5 percent) when compared with other professionals such as judges or lawyers (87.3 percent), doctors or dentists (82.7 percent), members of parliament (81.1 percent), or firm managers (73.3 percent).[23] In the international survey, professors recognize that "respect for academics is declining" (table 4.20). The proportion of Japanese faculty in agreement with this statement (64 percent) is the same as that of the United States, but is higher than that of countries such as Sweden (43 percent), the Netherlands (44 percent), and Germany (50 percent), and lower compared to that of countries such as Brazil (78 percent), England (73 percent), and Korea (69 percent).

The declining status of Japanese higher education is partly explained by the fact that more than half the faculty (56 percent) feel "the effectiveness of higher education is being threatened by growing bureaucracies" (61 percent at research universities and 54 percent at nonresearch universities; 51 percent of professors, 60 percent of associate professors,

Table 4.19

FACULTY ATTITUDES TOWARD THEIR CAREERS (PERCENTAGES)

	AGREE 1	2	NEUTRAL 3	4	DISAGREE 5	NOT APPLICABLE 6
This is an especially creative and productive time in my field.	22	41	29	6	2	1
This is a poor time for any young person to begin an academic career in my field.	2	11	25	27	34	2
If I had it to do over again, I would not become an academic.	7	9	29	22	30	3
My job is a source of considerable personal strain.	22	34	30	9	5	1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

Table 4.20

FACULTY PERCEPTION OF STATUS AND ROLE OF HIGHER EDUCATION (PERCENTAGES)

	AGREE 1	2	NEUTRAL 3	4	DISAGREE 5	NOT APPLICABLE 6
Access to higher education should be available to all who meet minimum entrance requirements.	33	22	20	11	13	1
Admission standards should be lowered to permit disadvantaged students to enroll at this institution.	3	5	24	16	42	10
Academics are among the most influential opinion leaders.	12	28	45	8	7	2
Respect for academics is declining.	27	37	29	5	1	1
Government support for higher education should provide free tuition for all students at public institutions.	18	13	25	14	29	1
Individuals and business should be encouraged to contribute more to higher education.	45	31	18	2	3	0
Institutions of higher learning are increasingly subject to interference from special interest groups.	12	22	47	8	7	4
The effectiveness of higher education is being threatened by growing bureaucracies.	24	32	34	5	3	2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

and 63 percent of assistant professors). A majority of professors (76 percent) agree that "individuals and business should be encouraged to contribute more to higher education."

Declining status may have some correlation with the present physical conditions under which the Japanese academic profession operates. Forty-three percent of faculty rate their own salary as "poor," although this percentage is much higher in other countries (table 4.21). Such a complaint is high among research university faculty and junior academic staff. In sum, a mere handful (11 percent) are content with their present salaries. Similar responses were found with regard to fringe benefits. These results probably reflect the fact that in level of salaries and fringe benefits the academic profession is somewhat behind comparable professions in Japan. When asked about prospects for salary improvement within five years, 8 percent describe them as "good" or "excellent," in contrast to about 43 percent who describe them as "poor" (58 percent in research and 38 percent in non-research institutions). The especially low expectations for salary increases among faculty at research universities can be easily understood, as many of these are national institutions, where salary is kept low by government regulation and economic stagnation.

A significant number of respondents (56 percent) state that "their jobs are sources of considerable personal strain" (65 percent of faculty at research universities). This is the highest response to this item among all the countries participating in the survey—higher, for example, than responses to this statement from Korea (50 percent), England (47 percent), Sweden (45 percent), Germany (38 percent), and the United States (33 percent). Among disciplines, higher agreement (and thus, more job-related stress) is found among faculty in the arts (81 percent) and in medicine and dentistry (71 percent).

In spite of declining status, perceived insufficient salary and fringe benefits, and other concrete matters, it is noteworthy that only 16 percent of respondents agree with the statement, "If I had to do it over again, I would not become an academic." In addition, the proportion of Japanese faculty (40 percent) who agree with the statement, "Academics are among the most influential opinion leaders," while far smaller than that for Korea (63 percent), exceeds that of all other countries, including Sweden

Table 4.21

FACULTY RATING OF SALARY AND BENEFITS (PERCENTAGES)

	EXCELLENT	GOOD	FAIR	POOR	DON'T KNOW
Own academic salary	1	10	44	43	1
Prospects for improvement in your academic salary in the coming five years	1	7	34	43	16
Retirement arrangements	1	9	56	28	6
Paid sabbatical leaves	2	9	25	40	24
Travel funds	1	7	27	64	2
Other fringe benefits[a]	1	9	58	31	1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Japan).

[a] This includes medical insurance, life insurance, housing, and education.

(30 percent), the United States (21 percent), Germany (15 percent), and England (11 percent). As a whole, it can be said that Japanese professors have a positive outlook toward their work and profession.

MAJOR CURRENT CONTROVERSIES AND ISSUES

University Reform as a Key Concept

One of the most important issues for Japanese academics is the building of an identity for themselves at this turning point in higher education. To achieve this goal would require much more external support for higher education from individuals as well as corporations; this was the widespread view among the respondents in this survey. At the same time, academics themselves should be expected to initiate university organizational reform and to explain the necessary reforms to government, business, the public, and consumers.

Issues

Among the many problems facing Japanese higher education, two issues are most critical: self-evaluation and improving the quality of academic work, and reforming the present closed academic structure.

Daigaku hyoka (university evaluation) has become the hottest topic in the Japanese university reform movement. Based on the recommendation of the University Council, the Ministry of Education, through a 1991 ministerial ordinance, asked all institutions to conduct monitoring and evaluations of faculty. This ordinance urges faculty themselves to monitor their daily activities in teaching, research, and social service, while carrying out evaluations of their performance, in order to maintain a high quality of academic work.

The introduction of evaluation is necessary for any organization to survive through a period of social and environmental change, particularly with regard to such issues as relevance and accountability. However, such review of faculty performance is controversial among academics, partly because it touches upon academic autonomy and freedom, and partly because in Japan there is no historical basis for such an approach.[24] Faculty evaluation is also a relatively new concept and has not been widely accepted, despite the findings of this survey—44 percent of faculty members (33 percent at research and 48 percent at nonresearch universities) report that their activities are periodically evaluated at their institutions. Such figures may be misleading, as they fail to shed light on whether real evaluations are undertaken that cover all aspects of research, teaching, and service. In fact, research is evaluated at 41 percent of the institutions, but at more than four-fifths of the institutions, teaching and service are not evaluated. Furthermore, evaluations by faculty in other departments as well as by external reviewers rarely occur, and almost never cover research or teaching.

The introduction of faculty review and evaluation should promote an increase in academic competition and mobility in international as well as domestic contexts at all institutions. As noted earlier, Japan's dominant pattern of closed institutional hierarchy reflects its traditional academic climate. Up until recently, little attention has been paid to the closed academic structure of Japanese higher education—such phenomena as low levels of academic mobility and of female and foreign faculty representation. The expansion in higher education in recent decades has involved greater budget expenditures from both public and private sectors. These increasingly complex funding relationships have led to new demands for accountability, competition, flexibility, and quality among academic institutions. Internationalization also demands an opening up of the closed academic structure to more frequent academic exchanges across borders and between institutions. Thus, inbreeding is to be regulated—first, by self-management—by holding the recruitment of graduates of the institution to a maximum of 50 percent in each institution, especially at research universities.

Graduate education is another area in urgent need of reform in order for Japan to "catch up" with the levels in universities in many foreign countries. For this purpose, separation of graduate students from the undergraduate student population is necessary—in Japan, the graduate tier has traditionally been included in the undergraduate.

Today, reinforcement of basic research in graduate schools and of high-quality education at the undergraduate level is becoming increasingly important. Some reforms are focused on the graduate level: the institutional separation of the two tiers of students, as discussed above, and the establishment of more graduate schools so as to double the number of graduate students by the year 2000, as well as increasing the percentage of graduate students from 5 to 10 percent of the entire student population.[25] The growing importance of research to Japanese professors indicates a readiness in the profession for these reforms. In the coming period, more attention will be paid by universities to graduate schools as centers of research activities.

CONCLUSION

This chapter has portrayed the central features of the Japanese academic profession from a sociological perspective by reporting data from the recent Carnegie Foundation International Survey on the Academic Profession.

The main functions in which the Japanese professoriate, along with their colleagues around the world, are engaged are teaching, research, social service, and campus administration. Faculty members recognize that among these roles, teaching and research are the most essential. Japanese professors are thought to put much more emphasis on research than on teaching, and the results of this survey support this perception. The fact that Japanese professors strongly identify themselves as researchers and devote a great deal of time and energy to research activity can be seen in all sectors of the profession, particularly at research universities and in the natural sciences. Teaching, however, remains in the development stage, even at nonresearch universities, where mass access has led to increased demands for a quality education. As Japanese universities enter the universal-access stage, much more attention and effort should be focused on teaching and the educational role of the institution.

Probably to the greatest extent among their colleagues in the participating countries in the Carnegie survey, Japanese professors are of the opinion that their working conditions are deteriorating in many respects, especially in terms of the physical environment. Teaching loads have become heavier; salary and fringe benefits are considered to be insufficient. Facilities and equipment are not adequately meeting the needs of teaching and research. Student quality is thought to be declining. Budgetary conditions have rapidly worsened over the previous ten years, especially at the national and research institutions—exacerbated by government crises during the recent years of economic recession. All these factors are ones likely to initiate a decline in morale among academics, and indeed, Japanese professors do tend to express low morale. In fact, Japanese academics express the highest levels of psychological stress among the countries participating in this international survey.

It has also been observed that faculty members still have a strong identity with and positive attitude toward the academic profession and its activities, although they are dismayed by the decline in working conditions within the profession. Certainly, they complain intensely about problems concerning facilities, equipment, salary, administration, and even the quality of students. Yet they maintain a good self-image and exhibit professional pride and contentment in their work itself. Their internal motivations are strongly reflected in their attitudes toward their work. Their drive to conduct research is drawn from personal intellectual motivation as well as by the pressures to publish, both of which are rooted in an ethos of science focusing on originality, discovery, and invention.[26] They express dismay at the bureaucratization and top-down control on their campuses. They put high value on the academic disciplines, autonomy, academic freedom, and collegiality—over monetary and materialistic rewards.

An overview of the survey results might lead to the conclusion that the Japanese professoriate is surprisingly sound and healthy. They do feel themselves well prepared for their jobs and have a positive self-image. The academic profession is still seen as an attractive career among academics themselves. These positive findings are more characteristic of faculty at research universities, in the natural sciences, and among full professors. On the other hand, declining social reliance on the academic profession has brought about a lowering of social respect for the profession. This might be caused by the fact that Japanese academics have thus far not effectively fulfilled social expectations, at a time of relentless social change. Nevertheless, Japanese academics are coping with increasing conflicts between society and the academic world, and preparing themselves for academic innovation and reform. The professoriate in Japan is gradually becoming more involved in sharing knowledge and is growing increasingly global and cosmopolitan in outlook as it faces the challenge of internationalization.

Gerard A. Postiglione

THE FUTURE OF THE HONG KONG ACADEMIC PROFESSION IN A PERIOD OF PROFOUND CHANGE

ALTHOUGH SMALL by comparison with others presented in this volume, Hong Kong's academic profession has much to gain or lose in the coming years as Hong Kong reverts to China. The academic profession in Hong Kong is more closely bound to Western university traditions and practices than is the case elsewhere in Asia. This gives Hong Kong the potential to influence the academic profession in China by offering a unique model of East-West academic integration. In addition, given the status of intellectuals in China, Hong Kong's reincorporation into the People's Republic of China in 1997 could have major implications for academic freedom and autonomy.[1] The academic profession has the capacity to act as a catalyst for a smooth transition or as a vehicle of resistance to change. In the interim, higher education has been greatly expanded, and this growth has been accompanied by a greater emphasis on graduate degrees and research capacity. The data in this survey were collected at a critical point in Hong Kong's transition and will provide a benchmark for further study of the academic profession.

OVERVIEW

In October 1989, the Government announced a decision to nearly double the number of students admitted to university degree studies by 1994–95. Aside from being a confidence booster in the wake of increased emigration, the move improved the opportunities of secondary school graduates to attend university in Hong Kong, while also permitting an increase in graduate students and research funding.[2] The mean percentage of the relevant age group admitted to undergraduate degree study increased to 18 percent in 1994–95, when total enrollment reached about fifty-eight thousand students. An estimated twenty-five thousand or more students attend overseas universities.

Hong Kong has nine degree-granting institutions of higher education, including six universities, a tertiary institution, the Academy of Performing Arts, and the Open Learning Institute.[3] All but the last of these are fully government-funded institutions. Until 1990 most degree courses were offered in two universities. A third university was established in 1991. One polytechnic began to offer degree courses in 1983 and another polytechnic and one tertiary college began to offer degree courses in 1986, representing 42 percent of all first degree enrollments in the UGC-funded institutions by 1988–89. The two polytechnics and one of the tertiary institutions earned university titles in 1994. By 1997, Hong Kong will have at least seven universities. The three top-tier universities—the University of Hong Kong, the Chinese University of Hong Kong, and the Hong Kong University of Science and Technology—provide a range of programs leading to undergraduate and graduate qualifications. They offer research programs in every subject area and provide scope for faculty to undertake consultancy and collaborative projects with industry.[4] The medium of instruction is English, except in the Chinese University of Hong Kong, which is a bilingual institution. We refer to these as type I institutions.

The Hong Kong Polytechnic University and the City University of Hong Kong (the former polytechnics) offer a range of courses leading to the awards of diploma, higher certificate, higher diploma, and bachelor's degree. They offer a small number of graduate degrees and have research programs in some areas, emphasize the application of knowledge and vocational training, and maintain strong links with industry and employers. The Hong Kong Baptist University (formerly Baptist College) and Lingnan College together provide undergraduate courses in the arts, sciences, social sciences, business, and communication studies. They plan to or already offer a small number of courses at the graduate level, with research programs in some subject areas, and they maintain strong links with the community. These four institutions that are less focused on graduate study we refer to as type II institutions.

Hong Kong's first university was established in 1911. Its original mission of serving the modernization of China has again moved to the forefront.[5] Since the end of World War II, the major role of university education in Hong Kong has been the socialization of an elite, increasingly drawn from the working classes, for commerce, industry, and government.[6] A 1982 report of four overseas experts appointed by the government to review the education system noted "an overwhelming case for the expansion of opportunity for study at the degree level, with particular emphasis on degrees in technological subjects, and in courses for higher education."[7] In 1988, the Education Commission recommended an expansion of the higher education sector, the rationalization of matriculation and length of study at the tertiary level, and an increased emphasis on research.[8] The rapid expansion of higher education created a major challenge for the maintenance of academic standards.[9] This increased the emphasis on effective procedures for monitoring and involved the full participation of external advisers, assessors, or examiners, from Hong Kong as well as overseas.

The most influential body in higher education has been the University Grants Committee, which "was established in 1965 to advise the government on the facilities, development, and financial needs of the universities."[10] It was retitled the University and Polytechnic Grants Committee in 1972, when it began to provide funding to polytechnic institutions. In November 1994, the body was renamed the University Grants Committee (UGC). In 1993 it included eight local Hong Kong Chinese, five members from the United Kingdom, three Americans (including a professor of Hong Kong Chinese origin), and one Australian. It can be expected that the future UGC will include members from mainland China. The Chief Executive of the Hong Kong Special Administrative Region after 1997, whose appointment must be approved by Beijing, will both appoint members of the UGC and will be the Chancellor of the universities.[11]

Hong Kong is the world's eighth-largest trading economy, though it ranks ninetieth by population. Its nearly 6 million inhabitants (95 percent Cantonese-speaking Chinese) enjoy the second-highest living standard in Asia, freedom of speech and the rule of law, but were without a fully elected legislature until 1995. Other features of Hong Kong include its large banking sector, efficient civil service, robust textile and electronics industries, highly skilled and educated populace, and mix of internationalism and neo-Confucianism.

In 1997, the territory will become a Special Administrative Region of the People's Republic of China under a "one country, two systems" arrangement, in which the current education system may be maintained. Embodied in its future constitution, the Basic Law, is a high degree of autonomy and the provision that Hong Kong people will rule Hong Kong.[12] Confidence in its future waxes and wanes depending on events in China and the state of relations between China and the United Kingdom.

The decolonization of higher education has come to mean more frequent contacts with universities in China along with closer economic and political ties, declining legitimacy of colonial educational policy, localization of the highest administrative positions, more attention to Chinese heritage, efforts to step up as well as to resist the pace of democratization; increased emigration of faculty with return migration of those who have acquired overseas passports, and expanding cultural and human resource linkages with adjacent South China—especially the Pearl River Delta.[13]

Within the context of decolonization, higher education is confronting at least four issues. First, rapid expansion means increased competition among the seven institutions of higher education for funding, students, and faculty. This has led to the introduction of increased accountability measures, as well as the establishment of academic centers of excellence.[14] Second, academic freedom and institutional autonomy have become less certain as the tendency toward self-censorship becomes more pronounced.[15] Third, research in science and technology is not keeping pace with that of its regional rivals in Singapore, Taiwan, and South Korea.[16] The final issue concerns the large number of overseas appointees and the fact that about 90 percent of all doctorates of Hong

Kong faculty were earned overseas, usually in Australia, Britain, Canada, and the United States; these factors are embedded within the problem of balancing localization, nationalization, and internationalization.[17]

PROFILE OF THE PROFESSION

Among the relevant questions regarding the academic profession in Hong Kong are the following: To what extent will the Hong Kong Polytechnic University, City University of Hong Kong, Hong Kong Baptist University, and Lingnan College (type II institutions) be able to measure up to the University of Hong Kong, Chinese University of Hong Kong, and Hong Kong University of Science and Technology (type I institutions) in terms of the percentage of faculty possessing doctorates?[18] What is the probability that institutional expansion will lead to faculty being drawn away from type II institutions and toward type I institutions? To what degree might this depend on where the doctorate was earned—either overseas or at type I institutions? Will retirement of overseas faculty cause the professoriate to become less international as more local and national hiring occurs? What effects will the new local, national, and international weighting have on the composition of the professoriate? The next section will attempt to provide some background for considering these questions.

For 1993–94, the total number of faculty across the seven institutions was 3,562[19] (table 5.1). The Hong Kong sample constituted over one-third of faculty across academic ranks within all departments and similar academic units of the seven UGC-sponsored degree-granting institutions of higher education. This survey was conducted before the two polytechnics and the Hong Kong Baptist College were granted university titles. There was a 37 percent response rate from the sample surveyed, accounting for about 13 percent of all faculty across institutions in May 1993.[20]

Less than half the Hong Kong faculty respondents are tenured; within that group, almost two-thirds are at type I institutions. The average number of years that faculty have been employed at their institutions is six and a half, though the median was four years. A differentiation between overseas and local terms of appointment has existed for many years in which the former have been entitled to certain

Table 5.1

NUMBER OF LOCAL AND OVERSEAS APPOINTEES EMPLOYED BY UNIVERSITY GRANTS COMMITTEE (UGC) INSTITUTIONS IN 1993

	NUMBER OF LOCAL APPOINTEES	NUMBER OF OVERSEAS APPOINTEES	TOTAL NUMBER ACADEMIC STAFF
TYPE I			
Chinese University of Hong Kong	450	265	715
Hong Kong University of Science and Technology	137	166	303
University of Hong Kong	297	309	606
TYPE II			
City University of Hong Kong	463	181	644
Hong Kong Baptist University	218	60	278
Hong Kong Polytechnic University	744	159	903
Lingnan College	79	34	113
Total	2,388	1,174	3,562

SOURCE: Data provided by the University Grants Committee in Annex A of a letter from Brian Lo, secretary general, University Grants Committee, 8 March 1994.

travel and accommodation benefits.[21] Four in ten faculty surveyed were appointed on overseas terms with the remainder being on local terms. A higher percentage of those on overseas terms are employed at type I institutions than at type II institutions. A higher percentage of local than overseas appointees are tenured, though it should be noted that a higher percentage of the latter had doctorates. Over half of the respondents had doctorates; this includes nearly three-quarters of those from type I

Table 5.2

HIGHEST DEGREE EARNED BY FACULTY, BY TYPE OF INSTITUTION (PERCENTAGES)

	TYPE I INSTITUTIONS	TYPE II INSTITUTIONS
Doctorate	74	36
Master's degree	25	47
Bachelor's degree	1	13
Associate or equivalent degree	0	3

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Hong Kong).

Table 5.3

REGION WHERE HIGHEST DEGREE WAS EARNED (PERCENTAGES)

	DOCTORATE	MASTER'S	BACHELOR'S	ASSOCIATE OR EQUIVALENT
Hong Kong	10	23	18	38
United Kingdom	27	38	32	25
United States	39	16	6	—
Other	24	24	44	38
(N)	(249)	(169)	(34)	(8)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Hong Kong).

institutions and slightly more than one-third of the younger faculty at type II institutions (table 5.2). Most faculty had earned their highest degree (especially the doctorate) overseas (table 5.3). The highest percentage of doctorates were earned in the United States.

Within type I institutions, 13 percent of respondents are full professors, 27 percent are reader/senior lecturers, 55 percent are lecturers, 2 percent are assistant lecturers, and 3 percent are of demonstrator rank. Within type II institutions, 4 percent of respondents are full professors, 15 percent are reader/senior lecturers, 25 percent are lecturers, 48 percent are assistant lecturers, and 8 percent are of demonstrator rank.[22]

There is a near equal balance of faculty between the science/technology and social science/humanities areas. These two groups have nearly the same levels of tenure, but almost two-thirds of the former and less than half of the latter have doctorates.[23]

The average age of the faculty respondents is forty-two years. Over 40 percent of faculty are in their thirties, and most are on local terms of appointment. Almost three-quarters of those between fifty and sixty-five years of age are on overseas terms. Faculty at type II institutions are generally younger, and an increasing number are studying for their doctorates at one of the type I institutions. The number of men exceeds the number of women by four to one. Within type I institutions, more than four-fifths of the respondents are men, as compared to about two-thirds of respondents at the other institutions. According to the survey, men are more than twice as likely to be university professors.

Hong Kong faculty are among the highest-salaried academics in the world. Nevertheless, for a variety of reasons, more than 40 percent see themselves as likely to leave their institutions within five years. Moreover, although Hong Kong's vibrant economy provides academics with many opportunities to supplement their salaries, in general, Hong Kong faculty seldom earn income from work outside of their institutions. For example, in answer to the question, "Of your total income, what percentage comes from this institution?" Hong Kong faculty report a mean of 97 percent and a median of 100 percent—much higher figures than in the other countries surveyed.[24]

It is important to view the academic profession in Hong Kong in terms of the types of institutions of higher education. Differences between faculty in type I and II institutions—including the proportion of doctorates, overseas appointees, women, and young faculty—have potential implications for the future of the profession. In the coming years, type II institutions will be handicapped by the fact that a significantly lower percentage of their faculty possess doctorates. They do, however, have the advantage of a younger faculty. Actually, type I institutions have a role to play in the upgrading of type II institutions by offering faculty at the latter the opportunity to enroll in doctoral programs locally. Nevertheless, given the expansion of student numbers and the likelihood that they will lose many faculty through emigration and retirement, type I institutions will be tempted to recruit from the cream of the fledgling type II universities.

To minimize the "brain drain" across types of institutions, a number of measures might be considered, including introducing parity in all aspects of salaries and benefits and across terms of appointment (local and overseas).[25] In addition, mobility of staff between types of institutions, in both directions, could be encouraged by supporting a broader distribution of internationally recognized centers of academic excellence across all institutions in a variety of fields.

The expansion of higher education may also necessitate casting a wider net for recruitment of faculty. That net will surely include China, which will contribute more to the staffing of the universities. At present, however, mainland China has its own shortage of doctorates and doctoral programs. This has created a large market for doctoral programs overseas, something that universities in Hong Kong are also tapping into by increasing the proportion of their doctoral students from mainland China. Hong Kong institutions of higher education have also begun to take advantage of the talents of people from mainland China who have earned doctorates in other countries but have not returned to China.

It is clear from the data that the character of the academic profession in Hong Kong is changing in other ways as well. More doctorates are now earned in the United States than in the United Kingdom or other countries. Rather than closely following the changing patterns in British higher education, perhaps Hong Kong should draw more upon innovations from other countries as well. Of relevance in this context, is the discussion later in this chapter on the ratings given by respondents with doctorates from different countries of the training they received for teaching and research in universities in these countries.

The state of the Hong Kong economy in the coming years may also determine whether Hong Kong decides to increase, decrease, or maintain the degree of internationalization within the profession, especially as it finds a growing pool of talent in China and the surrounding region, where economic links are growing stronger. Other factors will be equally important in the effort to maintain an international profession—factors such as working conditions, the intellectual environment, and the degree of academic freedom, which will be considered in other parts of this chapter.

Working Conditions

Having noted that the high levels of faculty salaries in Hong Kong will not necessarily prevent large numbers of faculty from leaving their institutions, the question remains as to how working conditions may influence retention of faculty in the coming years. The data on working conditions may shed some light on the issue. In particular, they will show the sometimes sharp differences in attitudes toward working conditions between faculty in different types of institutions, as well as emphasize differences in work loads between academic ranks.

Hong Kong faculty report very high workloads in teaching, research, and service activities (52.4 hours per week when classes were in session and 51.4 when they were not in session) (table 5.4). Time spent on teaching declines and time spent on administration increases as one moves up in rank, although there is little difference between ranks (professor, reader/senior lecturer, lecturer) when it comes to time spent on research (15 hours when classes are in session). Full professors work the longest hours, with a greater proportion of their time spent on administration (17.1 hours) than on research (14.6 hours) (figure 5.1).

Hong Kong's tertiary institutions are thought to be well equipped, and this is reflected in the survey. Faculty members, especially those in universities, give very high ratings to the physical resources supporting their work—including classrooms, technology for teaching, computer facilities, and to a lesser extent research equipment and instruments.

Table 5.4

HOURS PER WEEK ON PROFESSIONAL ACTIVITIES (BY RANK)

	CLASSES IN SESSION				
	TEACHING	RESEARCH	SERVICE	ADMINISTRATION	OTHER
All faculty	19.0	13.6	5.3	8.6	3.8
Professor	10.5	14.6	5.7	17.1	5.3
Senior lecturer/reader	16.8	14.7	4.9	10.0	3.9
Lecturer	18.6	14.5	7.0	8.4	3.8
Assistant lecturer	22.3	11.9	2.8	5.5	3.1
Demonstrator	24.6	9.4	4.3	4.4	3.2

	CLASSES NOT IN SESSION				
	TEACHING	RESEARCH	SERVICE	ADMINISTRATION	OTHER
All faculty	7.8	22.0	5.4	8.4	4.5
Professor	5.2	18.6	6.6	18.1	6.4
Senior lecturer/reader	6.3	23.1	6.0	9.7	4.7
Lecturer	7.4	23.8	5.6	7.9	4.4
Assistant lecturer	9.4	20.6	3.8	5.4	3.9
Demonstrator	11.7	18.5	6.3	4.2	4.0

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Hong Kong).

Table 5.5

FACULTY ATTITUDES TOWARD INTELLECTUAL AND SOCIAL WORKING CONDITIONS (PERCENTAGES)

	EXCELLENT	GOOD	FAIR	POOR	NOT APPLICABLE
INTELLECTUAL ATMOSPHERE					
All faculty	4	37	42	17	0
Type I	7	46	35	12	0
Type II	1	29	47	22	0
RELATIONS BETWEEN FACULTY AND ADMINISTRATION					
All faculty	3	28	46	22	1
Type I	4	36	45	15	0
Type II	1	22	47	29	1
FACULTY MORALE					
All faculty	4	29	40	27	0
Type I	6	35	42	16	1
Type II	1	24	38	37	0
CLARITY OF INTELLECTUAL MISSION					
All faculty	4	28	41	27	0
Type I	7	29	41	23	1
Type II	2	27	42	30	0
SENSE OF COMMUNITY					
All faculty	3	29	40	28	0
Type I	5	30	41	23	1
Type II	1	28	39	33	0

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Hong Kong).

BEST COPY AVAILABLE

Attitudes toward intellectual and social working conditions are in sharp contrast to those concerning physical resources (table 5.5). For example, intellectual atmosphere, the relationship between faculty and administration, and faculty morale receive notably low ratings, with type II institution faculty much less satisfied and more critical of institutional working conditions.

Fewer than half consider the intellectual atmosphere at their institution to be good to excellent (only 4 percent rate it as excellent). A closer look reveals differences among institutions. Fifty-three percent of faculty from type I institutions describe the intellectual atmosphere as good to excellent as compared to only 30 percent of faculty in other institutions.

Twenty-eight percent judge the relationship between faculty and administration to be good. Most rate it as fair (46 percent) or poor (22 percent). In only two countries for which there are data does a lower percentage of faculty regard the relationship between faculty and administration as excellent. However, while 40 percent of the faculty in type I institutions rate the relations between faculty and administration as good to excellent, only 23 percent of faculty in type II institutions rate it as such. The former gave higher ratings on most measures, including faculty morale, clarity of the intellectual mission, relationship with colleagues, satisfaction with courses taught, job security, promotion prospects, opportunities to pursue ideas, and institutional management. This difference may be partly explained by the fact that at the time of the study, type II faculty (still within a polytechnic or postsecondary college) were being assessed by their institutions according to university-equivalent ranks.

Salaries and Benefits

Most Hong Kong faculty surveyed rate their academic salary as good (46 percent) or excellent (25 percent). About twice as many type I faculty rate their academic salaries as excellent (33 percent) as do the faculty at other institutions (17 percent). Only 1 percent of faculty from type I institutions rate their salaries as poor, while 17 percent of faculty from the other institutions do so. We may attribute some of this difference to the fact that academic ranks at type II institutions, and thus their salaries, are not as concentrated in the upper levels as those in type I institutions.

Employment benefits in type II institutions have not always kept pace with those in type I institutions, which may explain the lower ratings for benefits reported by type II faculty. Type II institutions have a large concentration of local appointees. Not surprisingly, overseas appointees, who are more likely to be at type I institutions, rate their travel funds, study leave, retirement benefits, and other fringe benefits more highly than do others.

Only four in ten respondents rate their prospects for improvement in salary in the coming five years as good to excellent, which may help to explain why so many indicate they are likely to leave their institutions. Prospects for improvement can also be interpreted in terms of a number of other elements, one of which is academic rank. Norm-referenced promotion within a chair system can have the effect of locking younger faculty members into a situation in which, regardless of merit, they may have to wait for retirement of senior members of their departments.

Faculty Mobility

A large number of faculty respondents, 37 percent from type I institutions and 47 percent from type II institutions, indicate that they are likely to leave their institution within five years (table 5.6). Respondents were asked to think about their reasons for staying at or leaving their institution and to rank the relative importance of these considerations on a five-point scale. The reasons given included not only the responses offered on the questionnaire (income, resources for research, academic reputation of the institution, academic cooperation among colleagues, and region in which the institution is located), but a high proportion of write-in reasons as well.[26]

The expressed likelihood of respondents leaving their institutions should be viewed in the context of increased emigration levels prior to 1997, as well as in the context of the generally high mobility rates that exist in Hong Kong across occupations. Finally, a wide gap may exist

Table 5.6

LIKELIHOOD OF LEAVING THE INSTITUTION IN THE NEXT FIVE YEARS (PERCENTAGES)

	LIKELY	NEUTRAL	UNLIKELY	DON'T KNOW
All faculty	42	20	23	14
Type I institutions	37	21	28	14
Type II institutions	47	19	20	14
Overseas appointees	56	15	18	12
Local appointees	33	24	27	16
Science and technology	40	21	26	13
Social science and humanities	45	18	21	16

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Hong Kong).

between expressed likelihood and the probability of making a concrete decision to leave one's institution. Despite the variation in response patterns, there does appear to be a link between dissatisfaction with working conditions and the high proportion of faculty who say they are likely to leave their institutions within five years. Given the expansion of the higher education system and the need for increasing numbers of faculty, this apparent lack of institutional loyalty may be reason for concern. The challenge will be how to improve working conditions, and thus to reduce the number of faculty intending to leave their institutions.

Members of the academic profession in Hong Kong are more committed to their disciplines than to their departments or institutions; this is especially true for faculty at type I institutions, overseas appointees, and those in the social sciences and humanities. Sixty-eight percent of the respondents describe their commitment to their discipline as "very important," 46 percent indicate the same level of commitment to their department, while only 28 percent feel the same toward their institution. Seventy-one percent of those appointed on overseas terms rate their academic discipline as very important to them (and 39 percent as fairly important). Sixty-six percent of those appointed on local terms consider their academic discipline as very important to them (and 27 percent as fairly important).

How members of the profession view their future prospects might be improved by various reforms of organization and governance, as will be discussed in a later section of this chapter. Given the higher number of doctorates earned in the United States, and to facilitate future recruitment, a change in the system of titles of academic ranks could be given more serious consideration.[27] It is also notable that respondents in the science and technology fields place "resources for research" at the top of the list of factors to be considered when deciding whether to leave their institutions. Hong Kong's ability to catch up with its regional rivals in science and technology research would be severely hindered if large numbers of science and technology faculty members were to leave their institutions within five years.

Teaching and Research

Hong Kong's institutions of higher education were largely teaching institutions until the mid-1980s, when scholarly publications became an increasingly essential criterion for promotion and research funding became more readily available. The quality of teaching and research in Hong Kong's institutions of higher education can contribute to its future position, both internationally and within China. Hong Kong higher education can become part of the network of universities in southern China, or remain distinct as an international or regional center of higher learning.[28] In this period of rapid institutional expansion, new efforts have been under way in Hong Kong to systematically evaluate both research and teaching. The whole issue of upgrading Hong Kong's capacity in the fields of science and technology is linked to its future role locally, nationally, regionally, and internationally.

A high proportion of Hong Kong faculty teach; only two other countries in the international study had a lower percentage of nonteaching faculty. Of those faculty who do teach, more than half teach in both undergraduate and graduate or professional programs. Faculty employ a variety of teaching methods, with more than half requiring students to actively participate in class discussions. The survey respondents indicate that on average, 56 percent of course time is devoted to lectures, 36 percent to class discussion, 27 percent to laboratory work, and 18 percent to other activities. Faculty at type I institutions spend more time lecturing and less time on class discussion, laboratory work, and other activities than do their counterparts at type II institutions. Despite the higher proportion of local Chinese appointees, faculty at the latter do not rely to a great extent on traditional didactic methods usually thought of as more in keeping with Chinese culture.

Faculty in Hong Kong believe that their teaching is influenced by a number of factors (table 5.7). While faculty are split on the effect of certain factors, including course load and the number of students enrolled in their classes, many report that the kinds of courses they are assigned to teach have a positive influence on their teaching. Also, teaching facilities and resources in their institutions have a positive influence on their teaching, but the amount of student advising is seen as a neutral factor.

Research has a relatively important impact on teaching. At least 40 percent of respondents say that their research work has a positive effect on their teaching. Yet, almost half believe that the availability of research funding has no bearing on their teaching. Almost half (47 percent) say that their administrative work detracts from their teaching.[29] Likewise, there is much agreement that the pressure to publish reduces the quality of teaching, with roughly half the respondents stating that teaching should be the primary criterion for promotion. However, type I institution faculty and overseas appointees are less likely to hold these views than are local appointees and those in type II institutions. A shift in orientation is taking place in type II institutions, away from a singular focus on teaching and toward a more balanced emphasis on both teaching and research. There is reason to believe that those appointed earlier are making this transition with more difficulty than are more recent appointees.

A high percentage of faculty respondents (92 percent) report that their teaching is regularly evaluated, with little difference in responses between type I and type II institutions. Evaluation is slightly more likely

Table 5.7

FACULTY ASSESSMENT OF VARIOUS INFLUENCES ON TEACHING (PERCENTAGES)

	STRONG POSITIVE INFLUENCE 1	2	NEUTRAL/ NO INFLUENCE 3	4	STRONG NEGATIVE INFLUENCE 5	NOT APPLICABLE 6
The number of courses assigned to teach	19	14	33	13	13	8
The kinds of courses assigned to teach	37	22	25	7	4	5
The number of students enrolled in my classes	17	19	39	12	9	4
Amount of student advising	9	21	45	13	4	8
Teaching facilities and resources here	15	33	36	12	2	3
Research commitments	16	26	32	14	6	6
Administrative work	10	10	28	24	23	6
Availability of research funding	10	19	49	6	4	12
Nonacademic professional activities	4	11	49	11	4	21

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Hong Kong).

to be carried out by students than by department heads. External reviewers, peers, and senior administrators also play a significant role in evaluation. Most respondents believe that student opinion should be used in the evaluation of teaching effectiveness, and almost three-quarters of faculty are of the opinion that better methods are needed for evaluating teaching performance.

Perceptions of faculty about the quality of the training they received for teaching vary little across institutions (figure 5.1). However, those with higher degrees from the United States rate their training significantly higher than do those who earned higher degrees in the United Kingdom. The same holds true for the perceptions of faculty about the quality of the training they received for research. This is especially apparent in the case of type I institution faculty with doctorates.

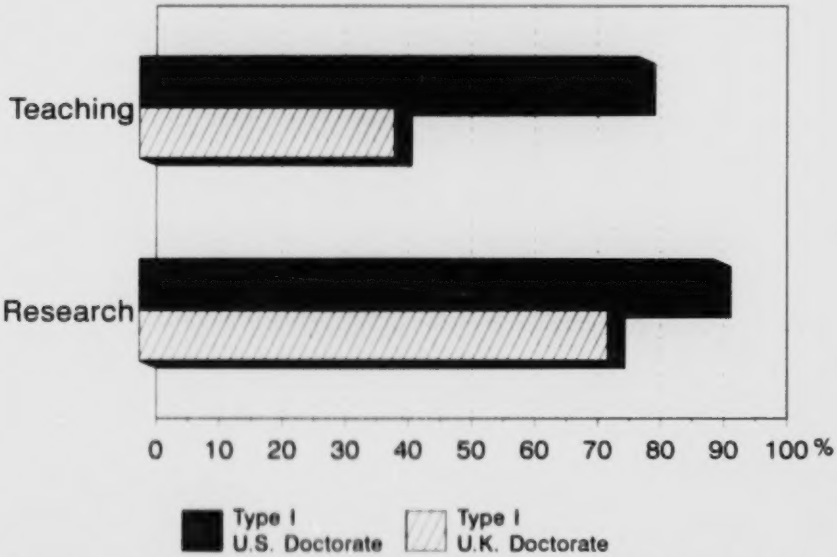
Faculty at type I institutions express more interest in doing research than in teaching; the opposite is true for faculty at type II institutions. While more time is spent doing research, much of this work consists of writing scholarly journal articles or academic book chapters rather than writing or editing books. Research funding is still modest by international standards, though increases in recent years have led to more large-scale research projects.

Respondents in the science and technology areas are more likely than are those in the social sciences and humanities to have published journal articles or book chapters, as well as to have written research reports, conference papers, or computer programs. But faculty in the social sciences and humanities are more than twice as likely as those in the science and technology areas to have authored or edited a book. More respondents in science and technology than in the social sciences and humanities state that regular research activity is expected of them. This is reflected in the higher levels of research funding they report receiving.

A greater number of faculty from type I institutions are engaged in research projects and, either as individuals or as part of an academic group, have received research grants or special funding over the previous three years than is true of type II institution faculty. However, the latter received a higher percentage of smaller research grants (those less than U.S.$50,000).[30] Moreover, faculty at type II institutions frequently feel

Figure 5.1

ASSESSMENT OF QUALITY OF TRAINING FOR TEACHING AND RESEARCH (PERCENTAGE RESPONDING "EXCELLENT" OR "GOOD")



SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Hong Kong).

under pressure to do more research than they would like. More type II than type I faculty feel that scholarly publications are just counted, and not qualitatively evaluated, for promotion decisions.

Faculty rank the following factors in order of importance as having a strong positive influence on their research productivity: the availability of research funding, facilities and resources for research, the number of courses a faculty member is assigned to teach, the kinds of courses taught, the number of students enrolled, the quality of students available as research assistants, the amount of student advising, as well as nonacademic professional activities and administrative work.

Hong Kong's institutions of higher education still appear to be teaching-intensive places, with much attention placed on the evaluation of teaching. However, as mentioned earlier, there is some concern about the pressure to publish and its influence on teaching, as scholarly publications have become the centerpiece of evaluation for promotion. Other countries may have an advantage in that they have a core of researchers free from administrative and teaching duties. This is rare, if not nonexistent in Hong Kong, but something worth considering, especially as Hong Kong moves to establish academic centers of excellence. In the science and technology areas, questionnaire responses do not help to dispel the impression that research funding in these areas is below the level needed to keep Hong Kong competitive with its regional rivals.

Quality of Students

Hong Kong faculty view their students as adequately prepared in mathematics and quantitative reasoning skills (giving them the highest rating in the international survey) but not in written and oral communication skills (giving them among the lowest ratings). More than half of the faculty do not believe their students would be willing to cheat to obtain good grades; however, less than half also say that their students do just enough to get by academically.

Less than half of faculty at type I institutions and less than one-third of faculty from the other institutions rate the quality of the students in their particular departments as good or excellent. Moreover, all indicate that the quality of these students has declined over the past five years; less than 5 percent feel that students currently in their departments are better than those of five years ago. And less than 10 percent judge the undergraduate students they teach in their institutions to be more studious today than those they taught five years ago.

The views about student quality indicate a considerable decline in standards. Such a perception is quite logical within the context of the rapid expansion of opportunities in higher education. Moving toward mass higher education requires a consideration of major innovations in almost all aspects of teaching and learning. Yet, aside from an increased emphasis on the evaluation of teaching, there is little sign of major efforts to institute the broad range of reforms in teaching required to deal with a more diverse student population. Hong Kong's traditional reliance on one model of higher education may be partly responsible for this. Mass higher education came late to the United Kingdom. Experience from other countries could provide valuable lessons as well. In particular, much could be learned from the role that academic culture and governance play in promoting or hindering teaching innovations.

Governance

Given Hong Kong's great challenges regarding representative government and democracy, it is not surprising that institutions of higher education would be expected to take a leading role. A key issue is the degree to which institutional decision making is decentralized, representative, and democratic and to what extent the individual faculty members feel influential in helping to shape key academic policies. Views within the academic profession about such issues can provide an indication of the extent to which the universities will be future beacons of democracy.

Hong Kong faculty generally view decision making in their institutions as relatively centralized, especially in the selection of key administrators, budget priorities, promotion and tenure decisions, and approving new academic programs (table 5.8). However, this is less true in decisions having to do with recruiting new faculty, determining admission standards, and setting faculty teaching loads. Faculty at type I institutions view decision making as much less centralized than do faculty at other institutions. Full professors see the system as being more decentralized than do those in other ranks. The same is true of science and technology faculty when compared to their counterparts in the social sciences and humanities, and of overseas appointees when compared to local appointees. On the other hand, only a small percentage of overseas appointees (22 percent) believe they are being kept informed about what is going on at their institutions.

Compared with faculty at type I institutions, those at other institutions view themselves as less influential at all levels of decision

Table 5.8

FACULTY PERCEPTIONS OF CENTRALIZATION OF DECISION MAKING AT THEIR INSTITUTION (PERCENTAGES)

	CENTRALIZED 1	2	3	4	DECENTRALIZED 5	DON'T KNOW
CHOOSING KEY ADMINISTRATORS						
All faculty	72	8	3	2	2	12
Type I institutions	67	11	3	3	3	14
Type II institutions	78	6	3	1	2	11
Overseas appointees	78	7	1	1	2	11
Local appointees	68	9	5	3	3	13
CHOOSING NEW FACULTY						
All faculty	21	16	16	20	22	5
Type I institutions	11	11	21	25	27	4
Type II institutions	30	21	12	15	17	6
Overseas appointees	15	20	16	23	21	4
Local appointees	25	14	16	17	23	6

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Hong Kong).

making (department, school or faculty, or institution) in helping to shape key academic policies. This is especially true at the institutional level, where 76 percent of respondents indicate they were not at all influential. The sense of personal influence on the part of faculty at type II institutions is lower at all levels, but especially so at the departmental level. At the departmental level, 57 percent of type I institution faculty indicate they are very or somewhat influential, while only 38 percent of type II institution faculty express such a belief (table 5.9).

Top-level administrators receive conservative marks from respondents in all sectors of the faculty across institutions. Less than a quarter agree that top-level administrators are providing competent leadership. More than half are of the opinion that communication between faculty and administration is poor, and that the lack of staff involvement in management and decision making is a problem. The leadership in type I institutions fares somewhat better in matters of management and decision making than do their counterparts in the other institutions.

The data in this section point to a trend toward centralized decision making in Hong Kong's institutions of higher education, with type II institutions appearing to be more centralized in character than type I institutions. This does not bode well for Hong Kong's efforts to promote democratic decision making and may also help to explain the high levels of dissatisfaction with institutional working conditions cited earlier in this chapter.

It is disconcerting that more than three-quarters of Hong Kong faculty feel themselves without influence in shaping academic policies at the institutional level. Even more disturbing is the perception that local appointees feel that they have less say than do overseas appointees. It is difficult to know without further research to what extent this is a reflection of traditional colonial patterns, inflated expectations, acceptance of a more passive role on the part of local staff, or the fact that overseas staff tend to be more concentrated in the upper ranks. Whatever the reason, this is a key point for further investigation, because if the institutions of higher education in Hong Kong are to take a leading role in the democratization of Hong Kong, local academics must first feel themselves to be more involved in academic decision making than is at

Table 5.9

FACULTY INFLUENCE AT THE DEPARTMENTAL LEVEL IN HELPING TO SHAPE KEY ACADEMIC POLICIES (PERCENTAGES)

	VERY INFLUENTIAL	SOMEWHAT INFLUENTIAL	A LITTLE INFLUENTIAL	NOT AT ALL INFLUENTIAL	NOT APPLICABLE
All faculty	13	34	28	23	2
Type I institutions	16	41	24	16	3
Type II institutions	10	28	31	29	2
Type I faculty (U.S. doctorate)	17	39	24	18	2
Type II faculty (U.K. doctorate)	23	49	12	14	2
Overseas appointees	22	42	20	16	1
Local appointees	7	29	34	27	3

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Hong Kong).

present the case. Moreover, there can be little doubt that the processes of decision making in the former polytechnics and colleges will have to be modified as their institutional culture evolves along with their new status as universities. The fact that Hong Kong faculty rate the competency of their administrative leadership lower than do faculty of any other country participating in the study is a cause for concern. Finally, the influence exerted by the academic profession within the institutions cannot be uncoupled from faculty attitudes about the major issues facing society and their role and influence in society.

Higher Education and Hong Kong Society

This section examines the views of the academic profession about the relationship between higher education and society. Due in part to the fact that Hong Kong is primarily a business and commercial community, academics and intellectuals have not enjoyed the influential role played by scholars within traditional Chinese culture, and this is reflected in the survey data.

Despite the influential role reserved for intellectuals in traditional Chinese culture, few Hong Kong faculty agree that academics are the most influential opinion leaders in society. Almost half report that respect for academics is declining, though it is unclear to what extent this may be part of an international, as opposed to a local, trend. Nevertheless, seven of ten do not view professional service beyond teaching and research as a distraction or as competing with essential academic work, and most state that they have a professional obligation to apply their knowledge to problems in society.

Most of the respondents believe that more than three-quarters of the young people in Hong Kong society are capable of completing secondary education, but that only half of these should be admitted to higher education.

Interestingly, only seven out of ten faculty say that higher education should be available to all who meet the minimum requirement, and there is little support for lowering admission standards to permit disadvantaged students to enroll at their institutions. Less than a third of the faculty are in favor of the government providing free tuition for all students. While there is little distinction between type I and type II faculty on this issue, major differences exist between the views of local and overseas appointees. Forty-four percent of overseas appointees believe that government should provide free tuition for all students at UGC institutions, while only 24 percent of local appointees take this position.

Eighty-six percent say that individuals and businesses should be encouraged to contribute more to higher education. At the same time, 40 percent were neutral on the subject of whether institutions of higher education are increasingly subject to interference from special interest groups. Not unlike academics in other countries, more than half of Hong Kong faculty (58 percent) think that the effectiveness of higher education is being threatened by growing bureaucracies.

More than half of the respondents think that academic freedom is strongly protected in Hong Kong; three-quarters of the faculty at type I institutions, and less than half of faculty at type II institutions agree (table 5.10). There is no difference between local and overseas appointees on this question. Yet, fewer than half of Hong Kong faculty feel that administrations in their institutions support academic freedom (table 5.11). More type I faculty and overseas appointees feel that their institutions support academic freedom than do type II faculty and local appointees.

Six in ten report that they are free to determine the content of the courses they teach, a view shared by both local and overseas appointees, but more in evidence in responses from type I university faculty than those from other institutions. Eight in ten state that they are able to focus their research on any topic, with higher levels of agreement by overseas appointees and faculty at type I institutions than their counterparts. Finally, more than two-thirds perceive no political or ideological restrictions on what a scholar may publish; university faculty and overseas appointees had higher levels of agreement.

Forty-two percent believe there is far too much government interference in important academic policies, with type I faculty and local appointees displaying higher levels of agreement. At the same time, almost half of the respondents think that government should have the

Table 5.10

IS ACADEMIC FREEDOM STRONGLY PROTECTED IN HONG KONG? (PERCENTAGES)

	YES	NO	NOT APPLICABLE
All faculty	61	26	13
Type I institutions	76	13	11
Type II institutions	47	38	15
Overseas appointees	61	27	12
Local appointees	61	25	14

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Hong Kong).

Table 5.11

THE ADMINISTRATION OF THIS INSTITUTION SUPPORTS ACADEMIC FREEDOM (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE	NOT APPLICABLE
All faculty	49	27	23	1
Type I institutions	65	23	12	1
Type II institutions	34	30	34	2
Overseas appointees	52	21	26	1
Local appointees	46	31	22	2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Hong Kong).

responsibility of defining the overall purposes and policies of higher education. These responses need to be viewed in the context of a higher education system that has virtually no private sector.

More than half of the respondents indicate that, of eight selected aims of higher education, free intellectual inquiry should be the highest priority for Hong Kong. Society's needs and other academic concerns comprise the remaining aims (table 5.12).

The ranking, based on the relative percentage of faculty selecting each stated aim, is as follows: protecting free intellectual inquiry, strengthening the society's capacity to compete internationally, promoting scholarship and research, preparing students for work, life-long learning for adults, educating students for leadership, helping to resolve basic social problems, and the preservation of cultural heritage.

Faculty at type I institutions ranked these concerns as follows: protecting free intellectual inquiry, promoting scholarship and research, strengthening the society's capacity to compete internationally, educating students for leadership, preparing students for work, lifelong learning for adults, helping to solve basic social problems, and preserving the cultural heritage. The rank order for faculty at type II institutions is as follows: protecting free intellectual inquiry, strengthening the society's capacity to compete internationally, lifelong education for adults, helping to solve basic social problems, preparing students for work, promoting scholarship and research, educating students for leadership, and preserving cultural heritage.

The ranking of nine selected global issues in terms of the relative percentage of faculty that believe it should be assigned the highest priority by government is as follows: basic education; environmental quality; human rights; the world economy; AIDS and other health-related issues; population growth; racial, ethnic and religious conflict; arms control; and world food supply (table 5.13).

A higher percentage of faculty at type II institutions (36 percent) and overseas appointees (36 percent) believe the government should assign the highest priority to human rights than do type I institution faculty (30 percent) and local appointees (31 percent). The order of importance, according to which local appointees rank the issues, is as follows: basic

Table 5.12

FACULTY RANKING OF PRIORITIES FOR HONG KONG OF EIGHT AIMS OF HIGHER EDUCATION (PERCENTAGES)

	EDUCATING STUDENTS FOR LEADERSHIP	PREPARING STUDENTS FOR WORK	LIFELONG LEARNING FOR ADULTS	PRESERVING CULTURAL HERITAGE	PROTECTING INTELLECTUAL INQUIRY	PROMOTING SCHOLARSHIP AND RESEARCH	CAPACITY TO COMPETE INTERNATIONALLY	HELPING TO RESOLVE SOCIAL PROBLEMS
HIGHEST PRIORITY								
All faculty	28	29	28	10	50	40	46	27
Type I	33	27	24	12	52	50	48	23
Type II	23	30	32	8	47	30	45	32
Overseas appointees	29	25	33	12	58	44	37	29
Local appointees	27	32	24	9	44	37	52	26
HIGH PRIORITY								
All faculty	51	49	38	33	35	44	40	48
Type I	48	47	35	32	34	44	39	48
Type II	53	50	40	34	36	49	41	47
Overseas appointees	52	48	32	30	33	46	41	44
Local appointees	49	49	41	34	37	47	40	50
MEDIUM PRIORITY								
All faculty	19	20	31	46	15	13	12	21
Type I	16	22	36	48	14	6	12	25
Type II	21	18	25	44	16	20	12	18
Overseas appointees	16	23	31	44	9	10	18	22
Local appointees	21	17	30	48	19	15	7	21
LOW PRIORITY								
All faculty	3	3	4	11	0	1	2	4
Type I	3	4	5	9	0	0	1	5
Type II	3	2	3	13	1	2	3	3
Overseas appointees	3	4	3	15	1	0	4	5
Local appointees	3	2	4	9	0	2	1	3

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Hong Kong).

Table 5.13

FACULTY RANKING OF PRIORITIES FOR GOVERNMENT REGARDING NINE GLOBAL ISSUES (PERCENTAGES)

	HUMAN RIGHTS	BASIC EDUCATION	WORLD ECONOMY	ENVIRONMENTAL QUALITY	POPULATION GROWTH	WORLD FOOD SUPPLY	AIDS AND OTHER HEALTH-RELATED ISSUES	RACIAL, ETHNIC, AND RELIGIOUS CONFLICTS	ARMS CONTROL
HIGHEST PRIORITY									
All faculty	33	54	15	44	13	9	15	12	12
Type I institutions	30	55	18	43	14	8	15	11	12
Type II institutions	36	53	13	45	13	10	15	13	11
Overseas appointees	36	53	12	57	18	10	20	17	19
Local appointees	31	55	18	35	10	8	12	9	6
HIGH PRIORITY									
All faculty	44	39	43	44	33	28	42	25	20
Type I institutions	46	37	39	43	31	25	44	24	19
Type II institutions	43	40	47	44	35	32	41	25	21
Overseas appointees	50	40	39	35	34	31	48	18	21
Local appointees	41	38	46	49	33	27	38	22	19
MEDIUM PRIORITY									
All faculty	18	6	35	12	40	41	36	38	27
Type I institutions	19	7	38	14	38	43	33	36	25
Type II institutions	17	5	32	10	41	38	38	39	30
Overseas appointees	10	7	40	8	35	39	27	41	28
Local appointees	23	6	32	15	43	42	42	36	27
LOW PRIORITY									
All faculty	5	1	7	1	14	22	7	26	42
Type I institutions	5	1	5	1	17	24	8	29	45
Type II institutions	5	2	8	1	11	21	6	23	38
Overseas appointees	4	1	10	0	13	20	4	14	32
Local appointees	5	2	4	2	14	24	8	34	49

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Hong Kong).

education; environmental quality; human rights; world economy; AIDS and other health-related issues; population growth; racial, ethnic, and religious conflicts; world food supply; and arms control. For overseas appointees, the order was: environmental quality; basic education; human rights; AIDS and other health-related issues; arms control; population growth; racial, ethnic, and religious conflicts; and world food supply.

The data in this section reveal several trends. Despite a recognition of declining academic standards, the academic profession supports the expansion of higher education provided that there are minimum standards of admission. At the same time more than two-thirds think that higher education should not be provided free to students, and more than 80 percent say that business should make a contribution. Attitudes concerning the goals of higher education and the importance of global issues reflect a commitment to protecting scholarship and the promotion of basic education. However, goals such as preserving the cultural heritage and global issues such as ethnic conflicts were viewed as low priorities.

The position and influence of the academic profession within Hong Kong society pale in comparison to the commercial and financial sectors. Only one in four surveyed describe academics as among the most influential opinion leaders. The expansion of higher education has the potential of enhancing the role of the academic profession. Already academics are becoming better represented in the legislative and executive organs of government. Yet academics who have risen to influential positions do not constitute a homogeneous group that takes a unified position on most issues. Moreover, those academics who have joined the party commanding the most elected seats in the legislative council of the Hong Kong government stand a chance of being isolated by Beijing after 1997. In short, the academic profession lacks the unity required to become a key player in the future struggle over representative democracy in Hong Kong.

Academic freedom and free intellectual inquiry, while generally well protected in Hong Kong, may face challenges in the future. It is not encouraging that the faculty view academic freedom as generally more highly protected in the broader society than in their own institutions. Dissident academics could be singled out in the years to come.

Institutions may only be willing to protect members of their faculty as long as it does not jeopardize the amount of resources they receive from the government. Since the UGC is the major decision maker in resource allocation involving the institutions, the future composition of its membership will be important. Academic freedom as an issue will be watched closely in the coming years as an indication of the openness of Hong Kong society and the vitality of its intellectual life.

Internationalism

The durability of academic freedom will certainly be related to the degree to which the academic profession in Hong Kong maintains a viable international dimension. The extent to which the academic profession in Hong Kong is international in composition has been demonstrated throughout this chapter. Yet, the potential of the profession to maintain that international dimension is less certain. This section looks at engagement of the faculty in a variety of international activities that involve teaching, curriculum, research and publications, and membership in professional associations, as well as faculty attitudes toward these international activities.

The character of the academic profession in Hong Kong is highly international, not only in terms of its composition but also in terms of the academic activities in which its faculty are engaged. This includes publishing articles or books outside Hong Kong and writing in non-mother-tongue languages. Those who engage in these activities have published an average of 6.5 articles or books outside Hong Kong in the previous three years. Faculty often work collaboratively with academics from outside Hong Kong on a research project, travel outside to study or do research, serve on the faculty of an institution outside Hong Kong, and spend sabbatical leave outside Hong Kong. Yet the faculty less frequently organize classes for students from outside Hong Kong; of faculty who did, the average number of times over three years was only 2.5 times.

Overseas faculty and those at type I institutions are generally more involved in international academic activities, with the exception of publishing in a language other than their mother tongue—an area in which they are far surpassed by local faculty during the past three years. Respondents indicate that academics from outside Hong Kong frequently teach courses at Hong Kong institutions or attend conferences and seminars. However, only 12 percent indicate that students from outside Hong Kong had frequently been enrolled at their institutions during the previous three years, and only 15 percent indicate that students from their own institutions had frequently studied outside Hong Kong.

Faculty at type I institutions published twice as many articles or books outside Hong Kong as did faculty at type II institutions. This is also true with regard to the number of articles or books written in a language other than their mother tongue during the previous ten years. Faculty at type I institutions organized almost twice as many classes for students from outside Hong Kong during the previous three years as did faculty at type II institutions.

Faculty belong to an average of two international and two local scientific societies. Eight in ten faculty think that connections with scholars outside Hong Kong are very important to their professional work, and almost all believe that in order to keep up with developments in their disciplines, they must read books and journals published outside Hong Kong. More than eight in ten state that institutions of higher education should do more to promote student and staff mobility from one country to another, and almost two-thirds respond that the curriculum at their institutions should be more international in focus.

The composition of the profession in Hong Kong is clearly international in character, albeit in a selective way. For example, the highest concentration of international faculty is from the United Kingdom and its Commonwealth countries, and from the United States. Faculty from other European countries and other parts of Asia, as well as the Middle East and Africa, are far fewer in number. Nevertheless, the internationalism that does exist is reflected in the survey data. And this internationalism has served Hong Kong higher education well in many ways, including the maintenance of standards and the amount of international academic exchange. For Hong Kong, the challenge will be maintaining this internationalism. For example, there are differences in attitude between overseas and local appointees on the relevance of international connections. While 72 percent of overseas appointees strongly agree that connections with scholars outside Hong Kong are very important to their professional work, only 46 percent of local appointees are of this opinion. Thus, as the number of local appointees increases, the profession may become less internationally minded—though their foreign language publishing record tempers this presumption.

Dissemination of research information overseas, the facility to publish in English, and the high degree of international academic interaction and interchange have all contributed to the quality of Hong Kong higher education. It is unclear how deeply localization and nationalization will cut into this internationalism. The meaning of international higher education and the degree to which it should be preserved have yet to be directly addressed by all Hong Kong's institutions of higher education. Despite the large number of international staff, there is general agreement across the profession that the curriculum in their institutions needs to be more international in focus.

Moreover, there are aspects of Hong Kong higher education that are not very international, especially in the area of student exchange programs. The three-year university program, a holdover from colonial education, allows little time for overseas study programs of six months or a year, which are standard in many universities around the world that have four-year programs. Moreover, the high cost of living accommodations in Hong Kong has been an impediment to attracting foreign students.

Policy Implications of the Survey

The rapid expansion of higher education, coupled with the complex transition to a "one country, two systems" formula after 1997 will present the Hong Kong academic profession with a challenging period of change. The data from the survey show an emerging profession that will be younger and increasingly localized. However, the dearth of doctorates in type II institutions and indications that a large number of faculty may leave their institutions within five years are issues that merit greater attention.[31] There is evidence that maintaining high salaries alone will not solve the latter problem. Dissatisfaction with institutional working conditions, including intellectual atmosphere and relations between faculty and administration, as well as with the quality of administrative leadership, also needs to be addressed, possibly through improved channels of communication between academics and administrators. The retention of faculty in the fields of science and technology will require channeling greater resources toward research in the future.

While full professors do spend a disproportionate amount of time on administrative duties as opposed to research, and while many academics think pressure to publish is detrimental to teaching, these are rectifiable problems. The great differences in attitudes between university faculty whose degrees are from the United Kingdom versus the United States concerning the quality of the training they received for teaching and research merit further examination. Since U.S. doctorates, who are required to do both course work and a dissertation, gave their training a higher rating than did U.K. doctorates, who are only required to write a dissertation, it would seem that Hong Kong should consider establishing course work doctorate degree requirements. On the other hand, there are a number of positive signs emerging from the survey, such as the variety of teaching methods employed, the continued attention to methods of evaluation, the increasing amount of time dedicated to research, and the firm commitment of faculty to apply their knowledge to the problems of society.

It has been confirmed that the rapid expansion of university enrollments would contribute to the perception that the quality of students has declined.[32] Nevertheless, the profession is supportive of expanding enrollments as long as minimal standards are maintained. At the same time, the traditionally strong emphasis placed on mathematics throughout the Hong Kong educational system was reflected in the opinions of the respondents. The perceived adequacy of student preparation in mathematics and quantitative reasoning skills was the highest of all the countries in the international study. Yet, perceptions of the adequacy of student preparation in written and oral communication skills are less reassuring. Presumably, this includes skills in both the Chinese and

English languages. The former will be increasingly important in the coming years for the image of Hong Kong higher education in the eyes of academics in other parts of China, and the latter will be important instrumentally in Hong Kong's business with the rest of the world.

In less than a decade, Hong Kong has made the transition from its status as a colonial society with two universities serving a small elite to that of a society in flux, with six universities serving a larger population. Moreover, Hong Kong's higher education system also sees itself as contributing to the modernization and development of China. Finally, while the data indicate that Hong Kong is not at the bottom of the international ranking in measures of academic freedom, it does not rank highly. It is unclear to what degree this relates to the recent trend toward self-censorship. Nevertheless, given the fact that Hong Kong has long touted its freedom of speech, it is surprising that it ranked below its East Asian neighbors on the question of whether academic freedom is strongly protected in its society.

Author's Note: This chapter is an expanded version of "Attributes and Attitudes of Hong Kong Academics," *Higher Education Management* 8, no. 3 (1996). The author would like to acknowledge the Hang Seng Bank Golden Jubilee Education Fund, administered by the Center of Asian Studies of the University of Hong Kong, and the Sik Sik Yuen Education Research Fund. The cooperation of the UGC in provision of related data is gratefully acknowledged, as well as the assistance provided by its secretary general, Nigel French. Cooperation of the institutional monitors is appreciated: Chinese University of Hong Kong, Leslie Lo; City University of Hong Kong, Agnes K. C. Yeung; Lingnan College, H. Wing Lee; Hong Kong Baptist University, William Wu; Hong Kong Polytechnic University, Lee Ming Kwan; Hong Kong University of Science and Technology, Alfred Hu Ko-wei; University of Hong Kong, Cheng Kai Ming; and, John Bacon-Shone of the Social Science Research Center (HKU). The research assistance of Chan Wai Bo and Chen Xiaoyu is gratefully acknowledged.

LATIN AMERICA

Simon Schwartzman and Elizabeth Balbachevsky

THE ACADEMIC PROFESSION IN BRAZIL

THE CARNEGIE FOUNDATION SURVEY on the professoriate starts with the notion that university professors constitute a distinct profession, an assumption supported by a growing body of literature. But what does it mean to say that professors are members of a profession? To what degree are the professor of pediatrics in a medical school, the researcher in a physics department, and the lecturer in a community college members of the same profession? Is this concept more than a statistical or administrative classification? How important is it to know whether academics truly belong to a profession in general and in specific contexts?

The idea of an "academic profession" corresponds to a model (or an "ideal type" in the Weberian sense) that has certain characteristics: a common core of competencies and educational backgrounds; a concern with research and scholarship; full dedication to work in universities and research institutions, rather than independent professional work in specific fields; involvement with matters of graduate and undergraduate education; and a commitment to the academic profession, above and beyond the institutional context in which the academic activities take place.

This ideal type is similar to that of the freestanding liberal professions of law and medicine but has to compete with two other professional models that are also central to academic activity. The second model, more typical of European countries, is the professor as a government officer, a member of the public bureaucracy. Like liberal professionals, civil servants possess the pride and prestige of a learned profession. They retain their professional identity and the esprit de corps that allow them to negotiate, up to a point, the terms and conditions of their work. Rituals of admission and professional practice are strongly enforced, both for education and for professional practice. Professors are not free to decide their careers, which have to follow the general rules and procedures of central authorities and complex bureaucracies. But they perceive themselves as public figures, with an intellectual and cultural role to play that goes far beyond that of any freestanding professionals. They are, to use Fritz Ringer's image, the modern version of the Chinese mandarins.

The emergence of the third professional model is a direct consequence of the expansion of higher education and the corresponding loss of status of the university professor. In most countries—and this is truer for larger than for smaller societies—higher education has become more heterogeneous, with different people looking for different types of education. Previously, a common education and a similar social origin were the grounds for the long-held belief that all sciences and learned professions shared a unified epistemology, to be maintained and expanded by the university.[1] Now, rather than seeing themselves as liberal professionals or as members of the intellectual and bureaucratic elite, professors more commonly see themselves as employees in large institutions, with a job to do and a salary to earn. Their passage through the academy may be temporary. Even if they have a lifelong career, they may be more committed to their specific profession than to the university and its values. This new academic environment is more like a trade union than a learned profession. The professors work for large organizations that are very often controlled by a centralized ministry having to account for the proper use of public resources and the delivery of educational services in appropriate quantity and time. Faculty respond in kind, organizing themselves in professional unions to guarantee their salaries, working conditions, and benefits. On both sides, there is strong pressure toward uniform standards and procedures, due process, and clear rules for admission, promotion, and payment.

Little is left of the traditional view of a common epistemology and homogeneous culture of scholarship unifying the academic profession. The relative prevalence of one of the three types depends on the way a given higher education system is organized, the role and weight of the private and the public institutions, the educational qualifications of professors, their social standing, and the professional and institutional traditions of a country; and it has consequences in terms of how the values and goals that are supposed to guide the academic activities are upheld and implemented. These models define the field of possibilities for the organization, values, and orientation of academics in a given context.[2] With this typology in mind, we shall examine the main traits of the academic profession in Brazil.

HIGHER EDUCATION IN BRAZIL

Brazil is a large country, with most of its population and most of its modern economy concentrated in the Southeast region, which includes the states of São Paulo, Rio de Janeiro, and Minas Gerais. The other regions are the densely populated Northeast, the country's poorest; the South, characterized by the presence of the descendants of European immigrants, small industry, and small-scale, technologically intensive agriculture; the North, with the demographically sparse and poor Amazon region; and the Midwest, the new frontier, also sparsely populated, but with extensive plantations, cattle herds, booming towns, and the country's capital, Brasília.

Catholic universities had been established in Spanish America in the sixteenth and seventeenth centuries, but the Portuguese rulers restricted the growth of higher education in Brazil. Brazil's earliest professional institutions—schools of law, engineering, and medicine—were not created until independence was achieved in the early nineteenth century and were patterned on the French model of state-controlled "faculties." It was not until the 1930s when the first truly Brazilian universities were created. Today, higher education institutions range from large to very small, public or private, with research and graduate education or just undergraduate teaching.

In Brazil, the notion that higher education requires permanent research and full-time professors and teachers is still more recent. Professors of law, medicine, and engineering (and later pharmacy, dentistry, accounting, architecture, and so forth) were supposed to be active in their profession, of which teaching at universities was considered a natural and prestigious complement, rather than the opposite. Employment in higher education institutions did not require more than a few hours a week, and payment was mostly symbolic.

The current framework for Brazil's system of higher education was established in 1968, when an educational reform was initiated in an attempt to reorganize it along the lines of the American model: the end of the traditional chairs; the creation of departments and institutes; the introduction of full-time contracts, graduate education, and the credit system; and the formation of close links between teaching and research. This reform, however, left undergraduate education in the European tradition of providing professional degrees after four to six years of study. Only a few not very successful attempts were made to introduce one or two initial years of general education.

In practice, the 1968 reform led to two parallel lines of development. Two public systems—one, that of the state of São Paulo, and another, that of the federal government—tried to follow the 1968 legislation, providing full-time employment for professors, creating graduate education programs, and limiting the number of students admitted each year.[3] At the same time, private higher education expanded, but was limited to undergraduate teaching, offering evening courses in the "soft" fields and catering mostly to students who had not passed the entrance examinations to public institutions. Private education developed mostly in the Southeast, where the demand for higher education far exceeded the availability of places in public institutions. (In São Paulo, only 19 percent of students are now enrolled in public institutions.) In the poorer regions, public institutions are still the dominant avenue to further education for the few who complete secondary school.

The 1968 reform, combined with a short period of intensive investments in scientific and technological research, led to the creation of a significant scientific community, working in the main public universities and a few government research institutes. There is now a pool of about fifteen thousand persons with doctoral degrees, most of them working in universities; about one thousand graduate degree programs in the universities; and public expenditures in science and technology of over $2 billion a year. Still, articles by Brazilian authors published in international journals have comprised less than 1 percent of the world total. In 1992 Brazil ranked twentieth among nations in academic scientific production in absolute terms. Links between scientific research and industry have been weak, and the impact of science and technology on the quality of undergraduate and technical education is limited, a few significant exceptions notwithstanding. Because of growing costs, budget limitations, and uncertainty about its broader role, this scientific community has undergone a period of hardship in recent years, and this is reflected in the current study.[4] Most of the competence in research and graduate education is concentrated in a few universities—such as the universities of São Paulo, Campinas, Rio de Janeiro, and the Escola Paulista de Medicina.

Brazilian undergraduate education in 1991 included 1,565,056 students enrolled in 893 institutions, with 146,988 "teaching positions"—of which 133,135 were actually filled. Only about 8 to 10 percent of the undergraduate age cohort have enrolled in recent years. In graduate schools, figures for 1989 showed 32,500 students in master's and 9,000 students in doctoral degree programs. After a period of rapid growth in the 1970s, the system stabilized in the 1980s, when the country's economy also stagnated.[5] Unemployment of university degree holders is not uncommon. (A more detailed statistical profile of Brazilian higher education is presented in table 6.1 and figure 6.1.)

This survey of the professoriate is the first of its kind to be undertaken in Brazil. It was carried out in 1992, in the states of São Paulo, Rio de Janeiro, Minas Gerais, Bahia, Mato Grosso do Sul, and Paraná. About one thousand academics answered the questionnaires, in a random, stratified sample of states, universities, and academics within the universities. The subjects were selected from lists of professors provided by the administration of their institutions. The sample included persons with full-time and part-time contracts, and excluded those linked to research projects but not on their institutions' payrolls. The questionnaires were personally delivered, and the number of refusals was very small, lower than 5 percent. In those cases when a selected faculty member could not participate, an alternative respondent was selected using the same random procedure.[6] The sample was intended to cover the variety

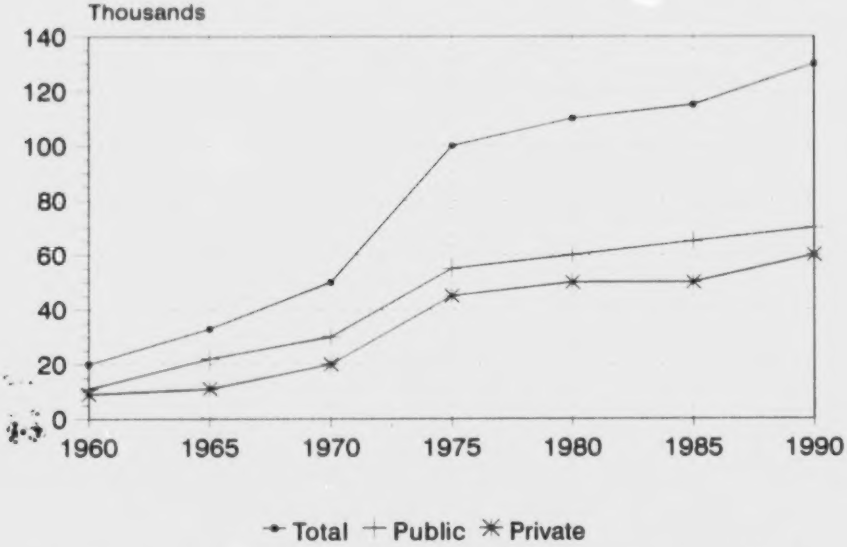
Table 6.1

PROFILE OF HIGHER EDUCATION IN BRAZIL (PERCENTAGES)

				FACULTY	
	INSTITUTIONS	ENROLLMENT	TOTAL	FULL-TIME	WITH GRADUATE DEGREE
REGION					
North	3	3	3	5	2
Northeast	11	16	17	22	16
South	63	56	55	47	61
Southeast	15	18	19	19	16
Midwest	8	6	6	8	5
LEGAL STATUS					
Federal	6	21	33	60	47
State	9	13	18	26	26
Municipal	9	5	4	2	1
Private	75	61	46	12	26
(N)	(893)	(1,565,056)	(133,135)	(57,728)	(46,758)

SOURCE: Data from the Ministério da Educacão, Serviço de Estatística da Educacão e Cultura, 1989.

Figure 6.1



SOURCE: Instituto Universitário de Pesquisas do Rio de Janeiro, Núcleo de Estudos sobre Ensino Superior, Banco de Dados de Cursos de Graduação.

of sectors, fields of knowledge, types of institutions, and regions in Brazilian higher education, but at the same time it oversampled institutions with higher levels of scientific productivity and with a higher percentage of professors with doctoral degrees.

WHO ARE THE ACADEMICS?

Professional Qualifications and Employment

As a result of the 1968 university reform, full-time employment for professors increased significantly in the public sector, but their academic qualifications, expressed in the percentage of persons holding doctoral degrees or full-time professorships, lagged behind. If we take these two elements, a doctoral degree and full-time employment, as the main preconditions for belonging to an "academic profession" in the traditional sense, then only about 30 percent of those interviewed qualify (table 6.2).

To some extent, to be or not to be a member in this group depends on the professor's field of knowledge and specialization. Not surprisingly, those in the "sciences"—physical, biological, and social—show higher levels of academic qualification and full-time employment than those in other fields—engineering, health, and the administrative, legal, and technical professions. In spite of the importance of the field of knowledge, the main determinant of whether a person will have a permanent, full-time job and earn a doctoral degree is the type of institution where he or she works. The "percentage of errors" column in table 6.2 suggests that about 46 percent of Brazilian professors are "misplaced" in the sense that they either have a stable, full-time job without an academic qualification, or are qualified but with part-time employment. The number of qualified persons without stable jobs in our sample is very small, less than 6 percent of the total. Most "errors" refer to persons with stable and often full-time jobs without the proper qualifications. The highest levels of "errors" are in the federal and state universities outside São Paulo.

Another aspect of academic employment in Brazil is the high percentage of faculty with full-time, permanent appointments in public institutions (table 6.3). Public universities are part of the civil service, and their professors have the same privileges, including job stability, as any other public employee. In the federal system, full-time status and stability are generalized, irrespective of degree, while the São Paulo university has retained a moderate association between full employment and academic rank. Private institutions, at the other extreme, keep full employment down.

Those working in the basic sciences and the humanities and in public universities tend to derive most of their income from their main academic institution, while the figures for the social and professional sciences and technology, and for private institutions, are significantly lower (table 6.4).

Table 6.2

FACULTY WITH DOCTORAL DEGREES AND FULL-TIME CONTRACTS, BY ACADEMIC FIELD AND TYPE OF INSTITUTION (PERCENTAGES)

	DOCTORAL DEGREES OR FULL PROFESSORSHIPS	FULL-TIME CONTRACTS	"ERRORS"[a]	TOTAL	(NUMBER)
ACADEMIC FIELD					
All fields	30	54	46	100	(964)
Physical sciences	48	84	42	13	(123)
Biological sciences	32	73	55	11	(105)
Social sciences	27	53	40	7	(70)
Humanities	29	59	41	14	(137)
Engineering	16	34	40	14	(134)
Health professions	39	47	53	20	(186)
Administrative and legal professions	30	39	44	9	(88)
Technical professions	17	41	44	3	(34)
Education	16	55	51	8	(80)
TYPE OF INSTITUTION					
All institutions	30	54	46	100	(964)
State (São Paulo)	69	75	16	16	(149)
State (others)	8	71	69	11	(107)
Federal	30	73	68	42	(403)
Private	18	15	24	32	(305)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

[a] Percentage of those without a doctorate and with full-time contracts plus those with a doctorate and part-time contracts.

Table 6.3

FACULTY WITH FULL-TIME CONTRACTS, BY INSTITUTION AND ACADEMIC DEGREE (PERCENTAGES)

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE	TOTAL
All faculty	59	75	96	24	66
Undergraduate degree	31	61	95	16	47
Specialization	40	78	97	24	63
Master's degree	32	82	96	27	70
Doctoral degree	64	63	94	29	72
Associate or full professor	86	100	96	50	83
(N)	(149)	(106)	(396)	(287)	(938)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Part-time work, however, is not restricted to private institutions. The São Paulo system—and the federal system, to a smaller degree—places a relatively high emphasis on the physical sciences, health sciences, and engineering, and in the latter two fields there is a high proportion of part-timers.

Social Origins and Mobility

The emergence of professions is usually associated with processes of upward mobility of specific groups, and this is partially true for academics in Brazil. In our survey, while 34 percent of the professoriate had fathers with only four years of primary education or less, the fathers of another 35 percent had university degrees. So, while for half the academics a university position meant a significant mobility through education, for the other half it was just a perpetuation of their families'

Table 6.4

SOURCES OF PROFESSIONAL INCOME, BY TYPE OF INSTITUTION AND ACADEMIC FIELD (AVERAGE PERCENTAGES)

	FROM THIS INSTITUTION	FROM OTHER ACADEMIC SOURCES	FROM NON-ACADEMIC WORK
TYPE OF INSTITUTION			
State (São Paulo)	77	6	16
State (others)	77	6	16
Federal	15	6	19
Private	38	16	42
ACADEMIC FIELD			
Physical sciences	83	6	11
Biological sciences	78	11	11
Social sciences	61	12	25
Humanities	75	13	11
Engineering	48	13	39
Health professions	52	6	38
Administrative and legal professions	48	7	42
Technical professions	59	8	33

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

social standing. Status differences among disciplines were not very large. There were more children of parents with little education in the basic and health sciences than in other fields, and more children of parents with university degrees in technology than in the rest.

More significant than differences in field are differences among institutions. State and federal institutions had the largest percentage of persons coming from lower social strata, while the São Paulo university and (contrary to common belief) private institutions recruited at higher social levels. This pattern reflects, in turn, a regional phenomenon: intergenerational mobility is much lower in Rio de Janeiro and São Paulo than in the states of Minas Gerais, Bahia, and Mato Grosso do Sul. The reason is that higher education institutions in the former regions are older, and there is a larger pool of educated families for the recruitment of academics.

We can say, in short, that public institutions outside the main centers, which are also newer, have been a preferred ground for social mobility through a university career. Not by coincidence, appointment requirements for these institutions are less demanding, as expressed in the lower qualifications of their staff. But they provide job stability, retirement benefits, and salaries that are fairly competitive and more secure than what one could get in the private job market outside the top positions in the prestigious occupations.

The modest social origins of so many academics help to explain why Brazilian professors tend to relate mostly to their own country, with limited international links. A broader explanation is that, as citizens of a continent-sized state, Brazilians tend to be more self-centered than people living in small countries with more lively frontiers.[7] Except for those in the higher academic ranks, they have little contact with institutions abroad.[8] Only 17 percent have ever worked with a foreign colleague on a research project, and only 26 percent have been abroad for study or research in the previous ten years (the figures for those with a doctoral degree are 41 percent and 59 percent, respectively). They agree that connections with scholars in other countries are very important for their professional work (1.5, on average, on a scale of 1 to 5, with 1 = agree and 5 = disagree), that a scholar must read books and journals published abroad to keep abreast of his discipline (1.3), and that universities should do more to promote international mobility (1.2). They are less certain, however, about the need to give the curriculum of their institution a stronger international focus (2.2).

Gender

The process of social mobility associated with the expansion of the professoriate is strongly related to the number of women and their distribution among different fields, and other special characteristics. About 40 percent of the professoriate are women, a remarkable figure considering that, as late as the 1960s, women were a small minority among higher education students.[9] More than 80 percent of full professors are men, compared with only 55 percent of assistant professors. Women are not only younger than men in our sample, but they started their careers, on average, two years earlier. Women are more likely to remain at the master's level, not advancing to doctoral degrees; they are more likely to work full time at the university; and they earn significantly less. They are also concentrated in the humanities and in education, while men make up most of the faculty in engineering. Some differences in professional characteristics between male and female faculty are summarized in table 6.5.

These data suggest a peculiar pattern of social mobility for academic women in Brazil. Rather than competing with men in the marketplace and in the traditional careers, they concentrate in the humanities and education, work to move up the academic ladder and complete at least their master's degrees, and get full-time employment in public, mostly federal, universities. The tendency for men, in contrast, is either to try to reach the highest ranks of an academic career or remain outside it altogether, with a part-time academic job and most of their professional investment outside the academic institutions.

Longitudinal data reveal patterns in the evolution of academic appointments to higher education institutions from the years before 1967 to the present. Before 1967, most professors were hired either in the health fields or in the basic sciences, with only a small fraction in technology. In the 1980s, technology took about 30 percent of the new jobs, followed by the humanities and the social sciences (together, these two remain the largest group). The federal system expanded until the late 1970s, after which it stopped hiring new professors. Subsequently, the private sector took its place. More than 80 percent of the professors appointed before 1967 were men, but in the 1968–70 period almost 50 percent of new appointments were women. While the proportion of women entering the academic profession followed the overall availability of positions in the federal higher education system, the pattern for men

Table 6.5
PROFESSIONAL CHARACTERISTICS, BY GENDER (PERCENTAGES)

	WOMEN	MEN
Age when started in academia	29	30
With salary below U.S.$10,000 a year	68	47
With salary above U.S.$25,000 a year	6	16
With full-time contracts	67	37
With master's degree (without Ph.D.)	39	23
With doctoral degree	20	23
"Errors"[a]	53	42

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

[a] Those without a doctorate and with full-time contracts plus those with a doctorate and part-time contracts.

was closer to that of the private institutions. A possible interpretation is that men take the jobs they can get, while women have more flexibility and withdraw from the academic job market if the positions available are not the best.

Income and Social Standing

The income figures of the professoriate by type of institution are shown in table 6.6. The dollar figures are difficult to compare internationally because of problems of exchange rates and internal costs in the local currency. The highest incomes are found among academics with the highest academic degrees, those doing part-time work, and those in the state of São Paulo—presumably, liberal professionals who have attained prestigious positions in their careers. The typical professor holding a Ph.D. and working full time earns between $10,000 and $25,000 a year.

Table 6.6

YEARLY INCOME FROM ACADEMIC WORK
(PERCENTAGES, IN U.S. DOLLARS)

	BELOW $5,000	$5,000–9,999	$10,000–24,999	$25,000 OR MORE
All faculty	27	29	33	12
TYPE OF INSTITUTION				
State (São Paulo)	10	20	51	12
State (others)	47	42	8	3
Federal	23	33	35	9
Private	32	22	29	17
ACADEMIC DEGREE				
Undergraduate degree	44	25	19	12
Specialization	41	32	22	5
Master's degree	24	41	28	7
Doctoral degree	7	18	57	18
Associate or full professor	8	16	46	30

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

At the time of the Carnegie survey, the lowest salaries were found among academics at private and state universities outside São Paulo, which is in part a reflection of the limited number of professors with full-time contracts in these places. Still, of those with incomes of less than $5,000 a year, about 40 percent had full-time contracts, the same percentage as those in the upper bracket (the percentage for the intermediate groups is about 60 percent).

A salary of $25,000 a year in Brazil, if combined with consulting or other forms of additional work, allowed for a comfortable middle-class standard of living in a two-income family. However, with inflation rates of 20 to 40 percent a month, which had been the pattern in Brazil at the time, a good salary one month sometimes turned into a totally inadequate one a few weeks later. Real salaries for professors in the federal system had declined in recent years, because of delayed or inadequate readjustments for inflation; the same applied to the state systems.[10] Extended strikes by professors occurred regularly in the federal system and, subsequently, in other institutions, leading to short-term salary increases, but creating a climate of low motivation and morale in the institutions. The dissatisfaction over salaries among professors was clear: most professors saw their salaries as poor, and they saw a future bleaker than the present (table 6.7).

However, the job situation of university professors, especially those in public institutions, was better than that of other persons with similar educational backgrounds. Academic salaries were declining, but so were most salaries in a period of economic stagnation. And the benefits of job stability, extended vacations, a light workload, and early retirement with full salary were impossible to get at private institutions. The complaints and resentment of academics regarding their salaries were due not so much to their relative position in society, but to a perception that their social standing was diminishing: social respect for their work was declining, and they did not see themselves as wielding significant influence. In spite of this feeling of frustration, they did not expect to leave their institutions within the next five years, although many of them thought they could do so if they wished. In aggregate terms, this expectation was clearly not realistic.

Between Job Security and Retrenchment

The general picture that emerges from these data is of a social group that, in the space of a few years, has attained a relatively secure and prestigious position in society, and now feels threatened by declining salaries and low social standing (table 6.8). For a significant part of the group, this

Table 6.7

FACULTY RATING OF INCOME AND BENEFITS, BY INSTITUTION (MEAN VALUES)

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE
How would you rate your own academic salary?	3.2	3.4	3.3	3.1
How would you rate the prospects of salary improvement in the coming five years?	3.5	3.8	3.6	3.2
How do you evaluate your retirement benefits?	2.3	3.8	2.6	4.2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: 1 = excellent; 4 = poor

Table 6.8

FACULTY RATING OF SOCIAL STANDING OF THE PROFESSION, BY INSTITUTION (MEAN VALUES)

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE
Academics are among the most influential opinion leaders	3.2	3.2	3.1	3.2
Respect of academics is declining	2.0	1.4	1.7	2.0

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: 1 = agree; 5 = disagree

Table 6.9

FACULTY ATTITUDES CONCERNING PROFESSIONAL MOBILITY (MEAN VALUES)

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE
If you left this institution, how easy would it be for you to find another professional, non-academic alternative?	2.2	2.7	2.4	2.2
If you left this institution, how easy would it be for you to find another professional, academic alternative?	1.9	2.8	2.4	2.5
How likely is it that you will leave this institution in the next five years?	4.1	3.3	3.9	3.4

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: 1 = very easy; 5 = very difficult

position was obtained without meeting the intellectual and professional requirements that are usually associated with the academic profession. By international standards, most Brazilian academics are not well qualified. They lack doctorates, are not trained to do research, and would have difficulty surviving in a more demanding and competitive environment. Although faculty complain about their salaries, they find that alternative positions are not attractive enough to prompt a change in jobs (table 6.9).

WORKING CONDITIONS

The usual assumption behind full-time contracts for academics in the universities is that roughly about half their time is dedicated to teaching and the other half to research. In most public universities, and particularly in some fields, departments, and institutes, there are active groups of professors who work intensively in research and teaching. In aggregate terms, however, only in the São Paulo university does the reported allocation of time show a similar distribution of time between teaching and research (table 6.10). Teaching occupies most of the time in all other types of institutions, except the private ones, where the time spent on non-academic activities was slightly higher. When asked directly about the number of actual hours spent on teaching, about half of the respondents declare that they teach eight or fewer hours a week, which is significantly less than the figures that appear in a standardized table.[11] The distribution of teaching load is inversely proportional to the academic degree attained by the professor, and to the time he or she devotes to the institution. Also, full-time professors in public universities teach significantly less than part-time or temporary teachers hired by private institutions. There are no significant differences among regions or fields of knowledge.

Brazilian professors are reasonably satisfied with their working climate, but do complain about professional benefits, equipment, and resources (table 6.11). The most significant discrepancies concern retirement benefits, which are good in São Paulo and federal institutions, but bad in other state and private places; the intellectual climate and availability of material resources and services are significantly better at the Universidade de São Paulo.[12]

Generous legislation for Brazilian professors at federal universities and in the state of São Paulo allows for men to retire after thirty years, and women after twenty-five years of work with full salaries, without significant contributions to retirement funds during their professional life. In recent years, the cost of these retirement benefits has been included in the institutions' budgets, absorbing about 20 to 40 percent of all resources available, and still rising. This situation is clearly untenable. At the other extreme, employees in private institutions are only entitled to a retirement ceiling of ten times the monthly minimum wage (less than U.S.$1,000) after thirty-five years of work, and there are usually no private pension arrangements. The situation varies by state, depending on whether higher education institutions are defined as part of the civil service.

Table 6.10

AVERAGE NUMBER OF WORKING HOURS A WEEK WHEN CLASSES ARE IN SESSION, BY TYPE OF INSTITUTION

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE	TOTAL
Teaching	12.6	17.7	16.2	13.4	14.9
Research	12.4	7.1	8.6	5.3	8.0
Service	3.9	3.9	4.0	5.3	4.0
Administration	4.7	4.2	4.8	2.1	3.9
Other activities	6.2	6.9	6.3	13.8	8.7

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: Answers adjusted to a standard forty-hour work week. When the total of hours reported was less than forty, the difference was attributed to "other activities"; when it was more, values were proportionally reduced to fit the total of forty hours.

Favorable reports about intellectual climate at the São Paulo university, together with better evaluations on the availability of teaching resources and services, confirm the notion that this is one of the best academic institutions in the country, and one of the best equipped, although its professors are as critical of their academic environment as those at other institutions.

PROFESSIONAL ACTIVITIES

Teaching

Teaching is the main activity and primary interest of Brazilian academics. Professors at the Universidade de São Paulo are more inclined to do research than the others, but only a few give research alone as their primary interest (table 6.12). Most of the teaching takes place at the undergraduate level, which, unlike the situation in the United States, is not general, but rather professional, education.[13] In the São Paulo and

Table 6.11

EVALUATION OF WORKING CONDITIONS (MEAN VALUES)

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE	TOTAL
PROFESSIONAL BENEFITS					
Retirement benefits[d]	2.2	3.7	2.6	3.5	2.8
Sabbatical leaves[d]	2.5	2.8	2.8	2.9	2.6
Support for academic travel [d]	3.3	3.4	3.3	3.4	3.5
Fellowships, incentives, and further studies[d]	2.9	3.0	3.0	3.0	3.0
Other benefits (medical, housing, family education, etc.)[d]	3.4	3.7	3.7	3.3	3.5
ACADEMIC ENVIRONMENT					
Intellectual climate[d]	2.2	2.7	2.4	2.4	2.4
Relationships between academics and the administration[a]	2.6	2.7	2.5	2.6	2.5
Morale among academics[c]	2.7	2.9	2.7	2.5	2.7
Clarity of institutional goals	2.7	2.8	2.7	2.6	2.7
Sense of community[b]	3.0	3.0	3.0	2.8	2.9
MATERIAL RESOURCES AND SERVICES					
Lecture rooms	2.7	2.8	2.8	2.7	2.8
Technical resources for teaching[d]	2.9	3.2	3.3	2.9	3.1
Laboratories[d]	3.0	3.1	3.4	2.9	3.1
Research equipment and instruments[d]	2.9	3.5	3.5	3.3	3.3
Computer facilities[b]	2.9	3.1	3.2	3.2	3.1
Library[d]	2.1	3.3	3.1	2.8	2.8
Offices for faculty[c]	2.8	3.3	3.1	3.1	3.1
Secretarial support	2.8	2.9	3.1	2.6	2.9

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: 1 = excellent; 2 = good; 3 = fair; 4 = poor

[a] <.1 significance
[b] <.01 significance
[c] <.001 significance
[d] <.0001 significance

federal universities, there is a sizable combination of undergraduate and graduate teaching, but not in the private and other state institutions (table 6.13). The teaching load in institutions with little graduate education is slightly higher, on average, than in the others (table 6.14).

Teaching is carried on more at the undergraduate than at the graduate level. Students are required to attend classes, write papers, make oral presentations, and participate in class discussion. Evaluation of students' performance is based on repeated written tests at the undergraduate level and on single tests and papers in graduate courses. Graduate education follows the American rather than the European tradition. Students have to attend classes, complete a fixed number of credits, and, at some point, write a dissertation (table 6.15). Most doctoral programs are concentrated in a few universities—the Universidade de São Paulo, Universidade Federal do Rio de Janeiro, and Universidade de Campinas—while master's programs are more evenly distributed, although almost nonexistent in private institutions.

Additional similarities and differences appear between graduate and undergraduate education. Above all, students have to learn facts and amass information. Theories, concepts, paradigms, and methods receive greater emphasis at the graduate level, but are still subordinate to factual accumulation. Professional competence for problem solving is practically absent as an educational goal, either because universities are removed from professional life or because professors do not know how to teach it—probably a combination of both reasons.

Professors are not happy with their teaching work and complain about the number of courses they have to teach, the size of their classes, their teaching facilities and resources, administrative workload, availability of research funding, and nonacademic professional activities. Some important differences among institutions appear (tables 6.16 and 6.17). Professors at the Universidade de São Paulo are less unhappy about their teaching facilities and resources, but complain more about their administrative workload; professors in private institutions and São Paulo are more prone to see their nonacademic activities as an asset. They are all in favor of incorporating students' opinions in the evaluation of

Table 6.12

DO YOUR INTERESTS LIE PRIMARILY IN TEACHING OR RESEARCH? (PERCENTAGES)

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE	TOTAL
Primarily in teaching	10	26	21	23	20
In both, but leaning toward teaching	36	43	41	45	42
In both, but leaning toward research	50	29	37	30	35
Primarily in research	6	1	2	3	2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Table 6.13

WHICH OF THE FOLLOWING REPRESENTS YOUR TEACHING RESPONSIBILITIES AT THIS INSTITUTION? (PERCENTAGES)

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE
Entirely undergraduate	37	85	54	78
Some undergraduate, some graduate	54	0	39	17
Entirely graduate	4	8	2	2
Not teaching this year	5	8	5	3

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Table 6.14

DURING THIS ACADEMIC YEAR, WHEN CLASSES ARE IN SESSION, APPROXIMATELY HOW MANY HOURS A WEEK DO YOU SPEND TEACHING AT THIS INSTITUTION?

	GROUP INSTRUCTION		INDIVIDUALIZED INSTRUCTION	
	MEAN HOURS	*NUMBER*	MEAN HOURS	*NUMBER*
State (São Paulo)	8.8	142	4.4	135
State (others)	12.4	101	6.4	86
Federal	6.4	383	5.8	346
Private	11.9	301	5.1	199

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Table 6.15

ACTIVITIES FACULTY REQUIRE OF STUDENTS FOR COMPLETION OF A COURSE (PERCENTAGE OF FACULTY SELECTING EACH ITEM)

	UNDERGRADUATE (*N*=921)	GRADUATE (*N*=324)
Attend classes regularly	78	65
Write several short papers	55	41
Write a major paper	48	67
Make a formal oral presentation	42	64
Participate actively in class discussion	66	69
Take a single examination	10	19
Take two or more examinations	66	31
No specific requirements	2	2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Table 6.16

PLEASE INDICATE THE WAY YOUR TEACHING IS INFLUENCED BY THE FOLLOWING CIRCUMSTANCES (MEAN VALUES)

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE	TOTAL
The number of courses I am assigned to teach	2.7	3.2	2.6	2.8	2.7
The number of students enrolled in my classes	3.1	3.3	3.0	3.3	3.1
Teaching facilities and resources here	2.9	3.0	3.4	2.9	3.1
My administrative work	3.8	3.5	3.4	3.2	3.4
The availability of research funding	3.2	3.7	3.6	3.3	3.4
My nonacademic professional activities	2.4	2.8	2.6	2.3	2.5

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: 1 = strong positive influence; 5 = strong negative influence

Table 6.17

OPINIONS ABOUT TEACHING CONDITIONS AT THE INSTITUTION (MEAN VALUES)

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE	TOTAL
Student opinions should be used in the evaluation of teaching effectiveness.	1.8	1.7	1.7	1.5	1.7
The pressure to publish reduces the quality of teaching.	3.5	4.2	4.1	4.1	4.0
We need better ways to evaluate teaching performance.	1.9	1.7	1.7	2.1	1.8
Teaching effectiveness should be the primary criterion for promotion of faculty.	3.5	2.6	2.7	2.3	2.7

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: 1 = agree; 5 = disagree

teaching—something that is seldom done in Brazil—and believe that there should be better ways to evaluate teaching performance. They dislike the pressure to publish, although this pressure is usually not very strong because of the lack of graduate education and research in private institutions, and because of the job stability in the federal system. Interestingly, the Universidade de São Paulo, which is the most research-intensive institution in the sample, is also where the pressure to publish is seen as less problematic. Again with the exception of the Universidade de São Paulo, professors believe that teaching effectiveness, rather than research, should be the main criterion for promotion.

Finally, professors are not happy with their students. Students are seen as not well prepared in language and communication, or quantitative reasoning skills; and also as doing just enough to get by academically, willing to cheat to get good grades, and less studious than students in the past (table 6.18). This situation of anomie among the student population, as perceived by their professors, is more acute in the private and in the state universities outside São Paulo, which are the institutions with more students from lower social strata. In all institutions, professors feel remote from their students and think that they ought to meet them more often outside the classroom.

Research

More than half of the professors say that their working contracts require research activities, a figure that reaches 91 percent for the São Paulo university and 65 percent for federal institutions. Percentages are also high for those with a doctoral degree (80 percent) and those in the basic sciences (68 percent).

Unfortunately, there is a significant difference between general statements about research work and reality (table 6.19). Only a third have received any kind of financial support for research in the previous three years, and slightly more than 50 percent have what could be called a "qualified" academic product, as defined in our survey. Of those, 21 percent had just one product in the previous three years, and 36 percent one or two. Although the quantity of "products" is a very rough measure

Table 6.18

FACULTY ATTITUDES TOWARD STUDENTS (MEAN VALUES)

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE	TOTAL
Students are adequately prepared in written and oral communication skills.	4.2	4.4	4.3	4.4	4.3
Students are adequately prepared in mathematics and quantitative reasoning skills.	3.6	4.0	3.9	4.1	3.1
Students do just enough to get by academically.	2.9	2.1	2.6	2.3	2.5
Students are willing to cheat to get good grades.	3.2	2.8	3.1	2.6	2.9
Students are more studious than those I had five years ago.	3.8	4.2	3.8	4.2	3.0
Faculty should spend more time with students outside the classroom.	2.1	2.1	1.9	2.1	2.0

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: 1 = agree; 5 = disagree

Table 6.19

RESEARCH ACTIVITY, BY INSTITUTIONAL CONTEXT AND ACADEMIC DEGREE (PERCENTAGES)

			IN THE LAST THREE YEARS		
	RESEARCH IS REQUIRED BY THE INSTITUTION	CURRENTLY ENGAGED IN SOME KIND OF RESEARCH	RECEIVED SOME KIND OF FINANCIAL SUPPORT FOR RESEARCH	PRODUCED ONE OR MORE SCHOLARLY CONTRIBUTIONS[a]	HAD ONE OR MORE PRODUCT OF ANY KIND[b]
INSTITUTIONAL					
Total	53	64	32	55	76
State (São Paulo)	91	93	50	83	95
State (others)	44	54	21	39	64
Federal	65	73	34	57	80
Private	23	41	23	44	65
ACADEMIC DEGREE					
Undergraduate	30	43	15	38	59
Specialization	31	41	12	33	63
Master's degree	64	70	61	84	96
Doctoral degree	80	92	61	84	96
Associate and full professor	62	77	43	76	86

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

[a] Scholarly books authored, articles in academic books or journals, patents secured, artistic work performed or exhibited, video or film produced

[b] All of the above, as well as scholarly books edited, research reports, papers presented at conferences, professional articles for newspapers and magazines, computer programs for public use, and others

of academic achievement, such small numbers do mean that scientific production by Brazilian academics is small. Not surprisingly, there are large differences in scientific production among types of institutions. In the São Paulo university, 54 percent of the professors had more than one product a year in the previous three years, against 27 percent for federal universities, 8 percent for other state institutions, and 32 percent for the private institutions.

The difficulty in getting research done is in part related to the limited academic qualifications of a large segment of the professors and to the scarcity of research funding. The proportionally large investments in science and technology made by the Brazilian government from the late 1960s to the late 1970s were drastically reduced in the 1980s, while demand increased. For those who reported some kind of financing in the previous three years, about half received less than U.S.$5,000. The main source of financing was government, followed by the researcher's own institution. No researcher receiving grants solely from their institution got more than U.S.$5,000 in the previous three years, and about half of those receiving funds from government also remained below that amount (tables 6.20 and 6.21). This picture suggests that the possibility of actually doing research in Brazilian universities has been more limited during the period than the figures for academic publications indicate. From the humanities and social sciences to technology and health, those who manage to work in teams are more likely to receive support for their work than those who work alone, but their chances are still less than 50 percent. Not surprisingly, professors who only do research have a negative assessment of facilities and resources for research, the main—and justified—complaint being the scarcity of research funding (table 6.22).

Service

"Service" in Brazil translates into extension work. For many years it was understood as assistance to benefit the poor, generally in terms of health services, legal support, continuing education, and teacher training. Students as well as professors can participate in extension work, and in some cases, especially in the health sector, it is an integral part of the

Table 6.20

RESEARCH FUNDING IN THE LAST THREE YEARS

	(*NUMBER*)	PERCENTAGE
Less than U.S.$5,000	(137)	46
$5,000 to $24,999	(92)	31
$25,000 to $49,999	(28)	10
$50,000 to $99,999	(15)	5
$100,000 to $249,999	(15)	5
$250,000 to $499,999	(3)	1
$500,000 or more	(6)	2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Table 6.21

SOURCE OF RESEARCH FUNDS (MULTIPLE RESPONSES)

	(*NUMBER*)	PERCENTAGE
The institution where I work	(133)	34
Brazilian government agencies	(237)	61
Brazilian companies	(35)	10
Brazilian private foundations	(23)	6
International agencies	(35)	9
Foreign government agencies	(39)	10
Multinational companies	(20)	5
Foreign private foundations	(13)	3
Other sources	(15)	4

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Table 6.22

INFLUENCE OF VARIOUS CIRCUMSTANCES ON RESEARCH (MEAN NUMBERS)

Availability of research funding	3.5
Research facilities and resources	3.3
Number of courses assigned to teach	3.2
Kinds of courses assigned to teach	2.6
Number of students enrolled in my classes	3.1
Quality of students available as research assistants	2.8
Amount of advising	2.8
Nonacademic professional activities	2.9
Administrative work	3.6
(Valid responses)	(545)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: 1 = strong positive influence; 5 = strong negative influence

students' training. More recently, service has begun to include work for private clients, business organizations, and governments, with some kind of payment. Initially, paid outside consulting and service were seen as infringements of full-time contracts, but today they are widely recognized as important mechanisms to link the universities with their environment. Several universities have tried to regulate how much time their full-time professors may devote to extension and other kinds of consulting work, how much of their income can be derived from these activities, and the overhead the university should receive. These limitations, however, are usually not very strict and are seldom enforced.

The number of professors who report having been engaged in some kind of service activity is very large, 74 percent of the total. Most believe that service to society is a professional obligation. Few consider that such service distracts them from their main activities, and, for a sizable group in some fields, such work provides a substantial portion of their income. The main difficulties they encounter in performing their service work are the lack of adequate research facilities and their administrative workload. Their attitude toward service is positive, less so in the sciences, and more so in the technical professions.

The biggest client for service work is government, national and local combined, followed by educational institutions, and finally by private companies and industries (table 6.23). The highest percentage of professors involved in service is at the São Paulo university (89 percent), and the lowest is at the federal universities (73 percent). Professors engaged in the basic sciences have the lowest level of involvement (70 percent), and those in health sciences, the highest (87 percent). Not surprisingly, technologists have more contacts with private industry, those in humanities and education with educational institutions, and those in health with governmental institutions.

Most service work is without financial compensation. On average, faculty in technical professions, in engineering, and those working in private institutions are paid for 40 percent of the time they spend on service; at the other extreme, those in the basic sciences are paid for less than 20 percent of the time. More than half the professors who report having been engaged in service see this kind of activity as a matter of economic necessity (53 percent of the total). This necessity seems more urgent among professionals working in the private sector, and less frequent among professors from the University of São Paulo. There is also a linear, inverse association between academic rank and this necessity. Finally, academics working in the technical and social professions are more likely to agree that they do it as a matter of economic necessity than are the others (table 6.24).

GOVERNANCE

Governance in Brazilian public universities is structured in the traditional European pattern, with extensive power given to the academic bodies,

Table 6.23

WITH WHICH KINDS OF ORGANIZATIONS HAVE YOU WORKED IN THE PAST YEAR? (MULTIPLE RESPONSES)

	(NUMBER)	PERCENTAGES
Business, industry	(223)	31
Educational institutions	(341)	47
Local government	(318)	44
National government	(206)	29
Private, social service	(62)	9
International government bodies	(39)	5
Other international institutions	(38)	5
Other	(98)	14

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: Includes paid and unpaid consulting work and public and volunteer service

and with an absence of professional administrators and managers except at the lower ranks. All top administrative positions (the rector, and officers such as the vice-rectors for planning, research, graduate education, undergraduate education, and extension work) are recruited from among each university's professors. Their activities are controlled by a series of councils, committees, and other collective bodies formed by professors and representatives of students and, sometimes, administrative personnel.

"Co-Gobierno"—the equal division of academic power among professors, students, and alumni—began in Latin America with the university reform movement of Cordoba, Argentina, in 1918 and has existed since then in different forms in most countries in the region. Brazilian public higher education institutions were, however, traditionally controlled by the governing bodies of the individual schools. The full professors or chair holders within the faculties would draw up lists of names from which the government nominated the directors or deans of each faculty. Rectors were designated in a similar way, and their power

Table 6.24

FACULTY ATTITUDES TOWARD SERVICE ACTIVITIES (PERCENTAGE RESPONDING "YES")

	DOES NOT PROVIDE SERVICE TO INSTITUTIONS	FACULTY HAVE AN OBLIGATION TO APPLY KNOWLEDGE TO PROBLEMS IN SOCIETY	SERVICE IS A DISTRACTION AND COMPETES WITH ESSENTIAL WORK	PAID CONSULTING WORK IS AN ECONOMIC NECESSITY	SERVICE IS IMPORTANT IN FACULTY EVALUATION
TYPE OF INSTITUTION					
All faculty	26	70	14	36	37
State (São Paulo)	9	64	12	25	39
State (others)	13	77	19	35	36
Federal	45	68	13	32	39
Private	32	67	10	41	30
FIELD OF KNOWLEDGE					
Basic sciences	34	58	15	21	29
Social sciences	19	75	12	60	38
Humanities	20	62	9	25	33
Technology	16	77	11	53	35
Health	10	74	18	31	45

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

was very limited before the 1968 reform legislation, given the strength of the professional schools and faculties.

This condition of oligarchic control, which cut across the traditional faculties, was shattered after 1968, when the old chair system was replaced by the departments and institutes. The office of rector grew in importance, while young professors and students gained an active voice in the new departments. The 1968 reform was an attempt to make Brazilian universities more modern, competent, and flexible than in the past, and it implemented several ideas that were first tried out in the universities of Minas Gerais and Brasília in the early 1960s. In 1968, Brazil was under a military government, the universities were kept under close surveillance, and the power of the government-chosen rectors was strengthened.

In the late 1970s, as the military regime started to wane, demands for collective participation by students and faculty in the decisions of the academic authorities intensified, and, with the new civilian regime installed in 1985, most public universities created mechanisms through which students, faculty, and other staff could vote, on an equal basis, for the election of academic authorities. This new kind of academic democratization was strongly supported by the professors' unions and student associations but was resented by important sectors of the professoriate as a concession to populism and an abdication of academic values. With a few exceptions, private institutions are on the opposite end, with all decisions made by those who control the institution, whether it is the church, a private foundation, or an individual.[14] The Universidade de São Paulo chooses its top administrators through a complex mechanism that preserves the power of senior professors to select the short list from which the state governor chooses the rector, who is, traditionally, the first name on the list.

Brazilian academics see a reasonably clear pattern regarding which decisions are made by the institution's authorities and which are made with the participation of professors. Central authorities decide about budgets, new academic programs, and admission standards; professors join in the decisions about matters that relate to them personally: teaching loads, choice of new faculty, and promotion rules.

Institutional comparisons reveal that professors from private institutions perceive their academic environment as significantly more centralized than do those in the public institutions, but the pattern in the São Paulo univeristy is closer to that of private institutions than to the public ones (table 6.25). The explanation is probably related to the fact that participation in institutional affairs in this university is still closely linked with academic rank. As expected, professors feel more influential at the departmental level than at the other levels, and professors with doctorates or additional qualifications tend to feel more influential at higher levels (table 6.26).

Professional Participation and Worldviews

If a profession is more than a nominal concept, this should be reflected by the active participation of its members in some kind of collective entity which would express their common identity and interests; if the members belong to different groups, it is likely that their attitudes and perceptions will also vary. In fact, Brazilian professors participate both in academic institutions and in the National Association of Higher Education Docents, a nationwide union that has its stronger constituency in the federal and state universities outside São Paulo. There are two distinct patterns of participation among Brazilian professors. Participation in unions is stronger among faculty with an intermediate level of qualification, working in federal or state public institutions; while participation in national and international professional and academic associations is strongly correlated with academic rank.

The survey confirms that Brazilian professors are as diverse as the higher education institutions in which they work. Based on these data, and on developments of the last few decades in higher education, it is possible to classify the professors in the survey into four main types. It can then be determined if their outlooks actually differ.

Type I is the traditional professor, as defined in Brazil—an academic distinguished in his profession and occupying the highest rank in the schools of law, medicine, engineering, or dentistry. He fits well the first ideal type proposed in the beginning, that of the liberal professional. Law

Table 6.25

FACULTY PERCEPTIONS OF CENTRALIZATION OF GOVERNANCE (MEAN NUMBERS)

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE	TOTAL
Selecting key administrators	2.3	3.8	3.5	2.3	3.0
Choosing new faculty	3.3	4.1	3.7	2.9	3.4
Making faculty promotion and tenure decisions	2.8	3.1	3.0	2.2	2.8
Determining budget priorities	1.6	1.8	1.6	1.4	1.6
Determining the overall teaching load of faculty	3.5	3.7	3.8	3.2	3.6
Setting admission standards for undergraduates	2.2	2.5	2.1	1.9	2.1
Approving new academic programs	1.9	2.1	2.0	1.8	1.9
Index of centralization[a]	2.6	3.0	2.8	2.2	2.6

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: 1 = control by top administrators; 5 = control by faculty

[a] These indexes were calculated by adding the answers to the respective items, and reducing them to a 1–5 scale.

Table 6.26

DEGREE OF FACULTY INFLUENCE ON GOVERNANCE
AT EACH INSTITUTIONAL LEVEL (MEAN NUMBERS)

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE	TOTAL
At the level of department or similar unit	2.3	2.1	1.9	2.3	2.1
At the level of the faculty or school	2.9	2.5	2.6	2.8	2.7
At the institutional level	3.3	2.9	3.1	3.2	3.2
Index of influence[a]	2.6	3.0	2.8	2.2	2.6

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: 1 = very influential; 4 = not at all influential

[a] These indexes were calculated by adding the answers to the respective items, and reducing them to a 1–5 scale.

professors typify this group. They dedicate most of their time to the practice of law. They come to the university only to deliver their lectures and to select the more qualified students to work as assistants in their firms and offices. They do not do any systematic research and do not hold a doctoral degree. They do not perceive themselves as part of an "academic profession." Rather, they regard themselves as members of the legal profession. In Brazilian higher education, this traditional type was dealt a severe blow by the elimination of university chairs in 1968 and is being overtaken by the other types of professors emerging in more recent years. For this analysis, we include in this group academics in medicine, law, dentistry, and engineering who work in public institutions and do not have a full-time academic job.

Type II comprises the younger professors, very often men, who are dedicated to their academic careers. They work full time at a good university, publish regularly, and hold a doctoral degree. They have very often studied abroad, speak more than one language, and have a degree in the basic sciences or social sciences. They are concerned with social problems and expect to make a useful contribution through their expertise. Their professional identity is based on their field of competence and specialization and on a work ethic grounded in individual competence and freedom to choose their own subjects of research, study, and reflection. They embody, in short, the ideal of the modern research university and the academic profession. They feel entitled to be supported by society, and correspond neatly to the second ideal type mentioned, that of the European scholar. For this analysis, we have included in this group those with a doctoral degree working full time in a public institution, outside the fields included in type I.

Type III encompasses the professors, very often women, in the humanities and education who have stable and full-time jobs in public institutions, but do not have the resources or the opportunities to reach the standards of professional achievement of type II academics. Even when her values are similar to those of type II, her practice is different: she belongs to the third type, that of the unionized professor. Her professional identity is not defined by her undergraduate degree, as in the traditional professions, nor by her individual achievements as an independent scholar and researcher, as with type II, but by affiliation to an institution and a group with whom she shares the daily problems, achievements, and routines of academic life. In this group of professors, one can find some of the central dilemmas that are common to all processes of professionalization: the conflict between the ideals of the collectivist trade unions and the individualistic liberal professions; the opposition between the values of personal achievement and those of the professional community; and, consequently, the spaces that are open or closed for intellectual growth, the development of competence, and the strengthening of social responsibilities. For this analysis, we included in this group all those with a master's degree or less, working full time for a public institution.

Type IV, which is often assumed to be a large group, consists of the professors who teach undergraduates in private institutions, without any kind of job stability. The usual image of this type is a professor spending long hours in the classroom in order to earn a living, without the deeper commitment to and identification with academic work. He does not fit any of our three ideal types of professional academics. Our survey suggests that this type is less common than expected. In the poorer regions, private higher education is not very large in scope and size. In other places, the instructor in a private institution at night may well be a full-time professor at a public institution during the day, a graduate student, or an active professional in his field. Private education may be better than might be expected given the absence of graduate education, full-time employment, and research, which are the hallmarks of the most prestigious academic institutions. For this analysis, we included in this group all professors working for private institutions, irrespective of other characteristics.

Some characteristics of the four types, and the subjects' attitudes regarding general issues and the role and status of higher education in the country, are shown in tables 6.27 through 6.30, ranked by importance. (Note: To make the eventual contrasts clearer, we eliminated from these tables respondents who could be classified as belonging to two or more types—for instance, faculty with doctoral degrees in the liberal professions.) The liberal professionals of type I are mostly men from highly educated families. Type III is clearly the more upwardly mobile group,

Table 6.27

CHARACTERISTICS OF FACULTY, BY FOUR TYPES OF PROFESSORS (PERCENTAGES)

	TYPE I	TYPE II	TYPE III	TYPE IV	ALL TYPES
Percentage of males	86	64	45	70	60
Percentage of fathers with higher education	36	37	29	37	34
Percentage that believe academic freedom is not protected	50	44	63	76	61

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Table 6.28

FACULTY PRIORITIES FOR GOVERNMENT ON GLOBAL ISSUES (MEAN NUMBERS)

	TYPE I	TYPE II	TYPE III	TYPE IV	ALL TYPES
Basic education	1.1	1.0	1.1	1.1	1.1
Human rights	1.5	1.4	1.3	1.3	1.3
Environmental quality	1.4	1.4	1.3	1.3	1.3
Racial, ethnic, and religious conflicts	1.7	1.6	1.5	1.5	1.6
Population growth	1.7	1.7	1.6	1.5	1.6
World food supply	1.9	1.9	2.0	1.9	1.9
AIDS and other health issues	1.8	2.1	1.9	1.9	1.9
World economy	2.3	2.4	2.3	2.2	2.3
Arms control	2.5	2.4	2.5	2.2	2.4

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: 1 = highest priority; 4 = low priority

Table 6.29

FACULTY PRIORITIES FOR HIGHER EDUCATION
(MEAN NUMBERS)

	TYPE I	TYPE II	TYPE III	TYPE IV	ALL TYPES
Promoting scholarship and research	1.5	1.2	1.3	1.4	1.3
Helping to resolve basic social problems	1.5	1.4	1.3	1.4	1.3
Protecting free intellectual inquiry	1.7	1.5	1.5	1.4	1.5
Preparing students for work	1.4	1.7	1.5	1.7	1.6
Strengthening international competitiveness	1.7	1.7	1.8	1.8	1.8
Preserving cultural heritage	2.0	2.0	1.9	1.8	1.9
Educating students for leadership	2.1	2.1	2.2	2.2	2.2
Lifelong learning for adults	2.2	2.5	2.2	2.1	2.2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: 1 = highest priority; 4 = low priority

Table 6.30

PERCEPTIONS OF STATUS, ROLE, AND SUPPORT OF HIGHER EDUCATION (MEAN NUMBERS)

	TYPE I	TYPE II	TYPE III	TYPE IV	ALL TYPES
Individuals and business should contribute more	1.4	1.7	1.9	1.6	1.7
Respect for academics is declining	1.6	1.7	1.7	2.1	1.8
Effectiveness is threatened by bureaucracies	2.1	1.9	1.9	2.1	2.0
Higher education should be available to all that qualify	2.1	2.1	2.3	2.0	2.1
Government should provide free tuition to all	3.1	2.1	1.9	2.5	2.2
Institutions are subject to special interest groups	2.6	2.5	2.2	1.8	2.2
Academics are influential opinion leaders	3.4	3.3	3.1	3.3	3.2
Admission standards should be lowered for disadvantaged students	3.9	4.3	4.3	3.8	4.1
Total	80	177	300	203	760

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

Note: 1 = highest priority; 4 = low priority

Table 6.31

FACULTY WHO BELIEVE ACADEMIC FREEDOM IS NOT PROTECTED IN BRAZIL (PERCENTAGE)

	STATE (SÃO PAULO)	STATE (OTHERS)	FEDERAL	PRIVATE	ALL INSTITUTIONS
All faculty	43	81	55	72	62
Women	52	90	65	76	70
Men	38	72	47	70	56

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

consisting predominantly of women from less-educated families. Type IV, surprisingly, has the highest percentage of well-educated parents, and is also predominantly male, dispelling the notion that those who work for private higher education institutions form some kind of academic proletariat. Type II occupies an intermediate position.

In a puzzling finding, when asked whether academic freedom is protected in the country, 62 percent of the total sample believe it is not. Other tabulations show that these percentages vary strongly with academic rank—the lower the rank, the higher the belief in the absence of protection for academic freedom. Institutional differences are even stronger: 81 percent of those in state universities outside São Paulo (and 43 percent at the São Paulo university) are of the same opinion. There is also a strong correlation with sex: figures for women are consistently higher (table 6.31).

Since the end of the military regime in 1985, Brazil has experienced a period of complete freedom of expression, and academic freedom, in its usual sense, has not been questioned. The responses suggest that this perception may be an expression of a general attitude of resentment and mistrust among Brazilian academics regarding the government. This attitude is more apparent in some groups, such as women at the small state universities (90 percent), as opposed to others, such as men at the São Paulo university (38 percent). These differences may be related to the different career

Table 6.32

CONSTITUTIONAL ORGANIZATION OF ACADEMIC ACTIVITIES (FACTOR ANALYSIS, VARIMAX ROTATION)

	FACTOR I: AUTOCRATIC ADMINISTRATION	FACTOR II: PERSONAL INFLUENCE	FACTOR III: AUTONOMY	FACTOR IV: FREEDOM IN TEACHING
The administration is often autocratic	−.76	−.06	.02	.21
Top-level administrators are providing competent leadership	.75	.08	−.01	.01
Communication between the faculty and the administration is poor	−.75	−.04	.00	.11
I am kept informed about what is going on at this institution	.63	.33	.01	.01
The administration supports academic freedom	.58	.10	.17	−.17
Has influence at the level of faculty or school	.15	.89	.04	−.04
Has influence at the institutional level	.19	.81	−.03	−.01
Has influence at the departmental level	.05	.79	.12	−.07
Freedom to determine the contents of courses	.01	.07	.74	.06
Freedom to choose any topic for research	−.02	.01	.73	−.18
Freedom to set standards for grading students	.06	.02	.71	−.01
Students should have a stronger voice in determining policy that affects them	−.11	.04	.07	.81
Academic freedom is strongly protected in this country	.05	.11	.25	−.59
Lack of faculty involvement is a real problem	−.48	−.07	.04	.52

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Brazil).

patterns of women and men, rather than to an actual condition of oppression of women academics in Brazilian society, which does not seem to exist.

A better understanding of what is meant by "academic freedom" in this context can be achieved through the factor analysis shown in table 6.32, which brings together several related items. The analysis reveals four clearly distinct factors. The first is related to autocracy in administration, the second to personal influence, and the third to academic autonomy. The fourth factor includes "academic freedom," which is associated with a concern for a stronger voice for students and greater faculty involvement in academic matters. This analysis reveals the real content of the complaint about "academic freedom": it is not related to actual constraints on the expression of ideas in academic activity, but to a general yearning for more student and faculty activism in academic matters.

Brazilian academics are mostly concerned with the country's internal problems—basic education, human rights, the economy, and social problems. They believe they can contribute to the solution of these issues by strengthening their institutions and keeping their standards high: they do not endorse lowering the admission standards in their institutions, and are deeply concerned about the priority that should be given to scholarship and research. They give low priority to issues like ethnic conflict, the world economy, and arms control, probably for sound reasons: these issues do not affect Brazil directly, and its government can do very little about them anyway.

The consensus among all respondents is high on most items, but there are some clear areas of disagreement as well. We have seen the differences over the belief that academic freedom is not protected. Another area of disagreement is whether the government should continue to keep higher education free for students in public institutions or charge tuition. Although the general tendency in our sample is to support free education, important variations can be observed, ranging from those with master's degrees in federal universities (1.5 on a scale with 1=agree and 5=disagree in favor of free tuition) to full professors in federal and private institutions (3.1). Proposals to introduce tuition in public universities are perceived by many as a denial of the government's responsibility with regard to higher education, and as a movement toward bringing higher education under the control of private and elite sectors. The opposing view is that free higher education is an unwarranted public subsidy for the children of the upper classes, and comes at the expense of basic education, health, and other social needs. In the Brazilian debate, opposition to tuition in public universities has been a banner of the teachers' unions and student associations. It is usually associated with resistance to policies such as evaluation, institutional autonomy, and academic accountability, which are all perceived to foster competition and differentiation, and to run against egalitarian values.[15]

In comparative terms, liberal professionals of type I are less interested in scholarship and research, the solution of social problems, the protection of free intellectual inquiry; and they are less worried about bureaucratic encroachment. They also believe more strongly than the others that respect for academics is declining. Politically, this group is much more conservative than the middle-level professionals of type III. Type III professors are more concerned with human rights, the environment, social conflicts, AIDS and other health issues, and the solution of social problems. They defend free tuition in public universities, are less interested in increasing the country's international competitiveness, and care less for the contribution of business and industry to higher education. Types II and IV tend to occupy intermediate positions on most items, suggesting possibly that these two groups are much less politically aligned.

Conclusion

The general conclusion of this analysis is that the academic profession in Brazil is going through a difficult period, and it is doubtful that the current predicaments will find a satisfactory resolution in the near future. Only a small section of the professors interviewed, those in type II, would fit a stricter definition of an academic profession. Those in type I are more linked to their specific professions than to the academic world, and the same can be said of type IV. The most difficult situation faces those of type III. Their condition of "imperfect professionalization" generates high levels of frustration and distortion. They are locked within the higher education profession by their gains in terms of salaries, job stability, retirement benefits and social prestige, which are the result, in many cases, of a rapid process of social mobility. They are unable, however, due to personal and institutional limitations, to get the qualifications and resources necessary for a full academic life, and tend to respond with political activism and mistrust.

The conventional expectation about these "imperfections" in the academic profession is that, with time, they will be corrected, and everybody will adjust to the academic mold. However, in reality higher education everywhere is diversifying. All kinds of institutions with all kinds of professionals are attending to all kinds of students. The full implications of this plurality and dispersion are still to be ascertained.

Ernesto Schiefelbein

THE CHILEAN ACADEMIC PROFESSION: SIX POLICY ISSUES

THIS CHAPTER focuses on six key issues that relate not only to the academic profession in Chile, but also to the future of Chilean higher education. Discrimination against women and the need to improve the training of academics are two issues discussed that are common to many developing countries—and especially relevant to other Latin American countries and to the Caribbean countries. Four additional policy-related issues are analyzed using data on the academic profession collected in 1991 and 1993: the effects of the military regime, the competitiveness of the system enacted in 1981, the quality of teacher training institutions, and prospects for future university expansion. The results of this analysis can help policymakers to define an agenda for raising the quality of university education in Chile and other developing countries.

HISTORICAL BACKGROUND

Before 1973, universities were governed by their presidents (*rectores*) and university councils made up of deans and, in the case of public universities, some government officials. Presidents and deans were traditionally elected by the academic staff; however, beginning in 1967, students had been increasing their share of power. An additional source of powerful external influence was to be found among the public funding agencies. By 1970, about 80 percent of the budget in the eight public and private universities was derived from public funds. The consequences of all this shared power included lack of long-term planning, high prices from suppliers in response to delays in payments, and excessive time spent by university managers who were obliged to lobby government officials and members of Congress.

A 1973 coup installed a military regime that assumed control over the university system, remaining in power until March 1990. Through a combination of vertical authority and market competition, the coup led to a shifting of emphasis in the education system toward the professional programs and, later, toward limited autonomy in the use of resources by relating funding to the market demand of new students. Members of the armed forces were appointed as university presidents (*rectores delegados*). As many as two thousand liberal scholars and twenty thousand students were summarily expelled. The social sciences were eliminated or constrained, and some twenty-five research centers related to the social sciences were closed or censored.[1] Teaching loads were increased, and loyalty to deans and the government became an important element of determining salary. Mastering accepted knowledge and the ability to apply that knowledge toward the solution of practical problems were the main criteria for reviewing curricula, selecting instructors, and testing students. Another outcome was the disappearance of student strikes—the school year became fully devoted to classes. In 1974, higher education came to consume a larger share (41 percent) of a smaller pie, as the total share of government spending on education declined to 14 percent (from 20 percent in 1969). Eventually, in the late 1970s, the basis for a major reform of higher education was developed by the economic advisers to the military regime.

In January 1981, three major reforms were instituted in Chile's higher education system. First, universities increased tuition to provide the only means of additional financing. Second, student loans were made available to all students in order to absorb the negative impact of tuition increases on students from low-income backgrounds. Third, half of all public funds for universities was allocated each year to those institutions that enrolled relatively higher proportions of new students with the highest scores on the "university entrance examination test" (Prueba de Aptitud Académica, or PAA).[2]

These reforms introduced market competition into an expanded higher education system that encompassed traditional universities (those already operating in 1980); "new" private higher education institutions, including universities (created after 1981) and a wide range of professional institutes (Instituto Profesional, or IP); and technical centers (Centro de Formación, or CFT). Fourteen different campuses of the two former public universities were transformed into separate traditional universities. During the first five years, new private universities (institutions granting degrees in at least three of the fourteen professional programs defined by law as "university" programs) required preapproval by the Ministry of Internal Affairs. Only three private universities were granted approval in the 1983–87 period. Thus, twenty-three universities were operating at that time.

Although from the outset intense competition existed among the traditional universities, this took the form of expanding those programs chosen by students with high scores on the PAA, hiring marketing agencies, and offering scholarships and fringe benefits to the best students. Enrollments in high-demand programs like medicine, engineering, and economics doubled the year the reforms were implemented. This enrollment explosion generated concern that after investing in expensive university training many graduates would face underemployment. In November 1981, initial results forced three crucial changes in the new system: the quality incentives (increased funds to institutions with higher enrollments of talented students) were no longer available to the new universities; only students enrolled at the traditional universities were eligible for student loans; and students from new universities and professional institutes were now required to pass examinations administered by the traditional universities in order to be promoted to the upper levels. In 1982, the government began restricting the creation of new programs and the number of students admitted. In 1983, subsidies were reshaped according to a five-point scale related to the scores on the PAA, and the amount was frozen in pesos in spite of the lower purchasing power caused by inflation.[3]

In 1987, there was a new purge of scholars. More emphasis was placed on the efficient use of resources, and political control over the opening of private universities was relaxed. Professors were fired, university funds were further reduced (but a portion was transferred to research). In 1989, fourteen new private universities, supported by student tuition fees, started operations with close to three thousand new places for initial student admissions. Although many of the declared objectives of the 1981 reform became obsolete with the changes implemented between 1981 and 1989, the number of students in new private higher education institutions increased dramatically. While enrollments at traditional institutions with public funds leveled off at about 127,000 students, the new institutions almost matched that figure. From a level of 12,000 students in nonsubsidized CFTs in 1981, private enrollments increased to 106,000 in 1989 (8,000 in new universities, 24,000 in new IPs, and 74,000 in CFTs).

In 1989, 100,000 first-year students were admitted to postsecondary education (40 percent of the eighteen-year-old population). Around 30,000 were enrolled in universities, with the balance enrolled in IPs (10,000) and CFTs (60,000) offering short (two- or three-year) programs. There were 233,000 students in the postsecondary system (19 percent of the eighteen- to twenty-two-year-old population) including 126,300 in traditional universities.[4]

While new private resources have financed a large increase in two- or three-year programs, the real expenditure per student in traditional universities declined in the 1980s, and enrollments there leveled off. With an average annual tuition estimated at U.S.$1,200 in new universities, U.S.$800 in IPs, and U.S.$500 in CFTs, the contribution of the private sector increased from near zero to about U.S.$55 million per year during the 1981–88 period. In the same period, the public contribution was reduced from U.S.$171 million to U.S.$115 million, while university enrollments increased from 99,428 to 126,300.[5]

All universities operating in 1991 were dependent on a mixture of public and private financing. Universities now charge significant student fees (about 60 percent of instructional unit costs, excluding expenses for research and public services). The government has not interfered in the setting of tuition rates by individual institutions, and thus tuition rates are adjusted according to market trends—up to about U.S.$1,200 in the case of the new private universities.[6] Unfortunately, along with the increase in tuition fees, access for students from low-income backgrounds has not been protected. Nationally, more than half of all tuition is paid through student loans (*credito fiscal*). About one-third of the student body has received student loans. Repayment of loans began in 1989, and the default rate is more than 40 percent. There are thirty thousand default cases in litigation. Many of these cases involve students who dropped out and are unemployed: the rate of unemployment for young people is more than 20 percent.[7]

In addition to tuition for instruction, higher education institutions charge for a number of other services. There are products and services sold by auxiliary enterprises such as hospitals, bookstores, cafeterias, cinema, theater, music, television stations, social or sport clubs, sporting events, laboratories, testing services, and student housing—most of which are usually subsidized. Although the prices for these products and services may be raised, there are high political costs to advocating price increases. While specific funds for research and technology have been gradually channeled through the Research Council (Consejo Nacional de Ciencia y Tecnología, or Conicyt), they represent only 12 to 15 percent of total funds used in research activities. Transfers of some U.S.$5 million each year go from the Science and Technology Development Fund (Fondo de Desarrollo de Ciencia y Tecnología, or Fondecyt) to research projects carefully selected in a competitive process. All institutions (including newly created universities) can apply for research grants. Around U.S.$5 million per year (about 30 percent) from international technical assistance is also channeled into research. The correct balance between "targeted" and "competitive" research has yet to be found.

The quality of professional training can be judged by the performance of the best graduates who continue their studies in developed countries. For example, there is a 30 percent pass rate of Chilean physicians taking the Foreign Medical Graduate Examination for the Medical Sciences, even though it is taken in a foreign language.

CURRENT SITUATION OF CHILEAN ACADEMICS

The Carnegie Foundation's International Survey of the Academic Profession was conducted in Chile during September and October of 1991 and again in April and May of 1993.[8] These randomly selected samples of Chilean university faculty report that they are primarily interested in teaching, yet one-third—mainly those who hold the equivalent of a doctorate—express an interest in carrying out research. University professors feel that they are better trained for teaching than for research and do not feel that the lack of research training affects what they consider their relatively high level in teaching performance.

Chilean university professors express relatively positive opinions about faculty morale and the facilities needed to support their work, although this varies among institutions. For example, 85 percent of university professors say that the intellectual atmosphere is at least adequate and that they are optimistic that "this is an especially creative and productive time in [their] field." In answer to six out of eight questions concerning institutional facilities and resources, at least 60 percent of the professors evaluate the facilities, resources, or personnel support for carrying out their work as at least fair. In spite of these relatively favorable responses, 74 percent are not satisfied with the way the institution is managed.

The positive responses reported in the first sample were challenged by the academic elite who attended the meetings held in 1992 in each university to discuss preliminary findings. Some participants argued that academics might fear being punished for revealing their true feelings and opinions about university affairs. A second sample was administered in early 1993 with a revised questionnaire that, unlike the first, was used by all other countries as well. The responses cited in the previous paragraph proved to be consistent with the second data set.

Training and Commitment

Only 18 percent of academic staff have doctoral degrees. In the top two universities, nearly 30 percent of the faculty are educated at this level. But the sample also includes universities in which only 6 percent of professors have doctoral degrees. The whole range is far below the levels of more developed countries. Furthermore, degree levels are not expected to change in the near future since there has not been a massive hiring of teachers within the last two decades and no strategy for teacher training has been implemented. A reported 22 percent of university professors have obtained tenure, including the majority of professors with doctoral degrees.

Faculty members' responses show that there is a stronger commitment to their specific field than to the institution itself. As many as 89 percent of university professors believe that affiliation with their academic discipline is "very important," compared to 64 percent who give the same rating for their affiliation with their institution. Lack of commitment to the institution could be a result of high employment stability, the need for outside employment, low salaries, and inadequate benefits.

Salary and Working Conditions

Academic staff report an annual income of close to four times the national per capita income. Given that in most cases spouses of academic staff are also working and generating a similar income, their family standard of living is fairly good. In any case, half of the respondents consider their salaries to be poor. Indeed, half of them report having a second job. There is high employment stability among the academic staff, and almost half of them find satisfaction in their jobs. Near two-thirds (64 percent) have permanent, full-time contracts, but there is wide variation among the universities included in the sample (from 11 to 90 percent). Only 20 percent agree that they may leave this profession within the next five years; and only 16 percent would not enter the academic profession if they had it to do over again. However, only 46 percent of professors are satisfied or very satisfied with their job situation as a whole, and 41 percent agree that it is a poor time for any young person to begin an academic career in their field.

Close to 70 percent of the university professors' time is spent in teaching or research, although the number of hours spent on each activity depends on the staff member's position and whether or not classes are in session (table 7.1). The average professor spends nineteen hours per week on teaching. In general, professors report that they are satisfied with the teaching aspect of their jobs, although this differs among the various academic positions.

Table 7.1

HOURS SPENT PER WEEK ON PROFESSIONAL ACTIVITIES (MEAN NUMBERS)

	CLASSES IN SESSION	CLASSES OUT OF SESSION
Total weekly hours	39	31
Teaching (preparing lectures, advisement, evaluation)	19	6
Research (reading, writing, experimenting, field work)	10	13
Service and educational outreach (paid or unpaid)	4	5
Administration (committee and department meetings, paperwork)	5	5
Other (professional work, editing scholarly journals)	1	2

SOURCE: Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (1991 survey of Chile).

Teaching

Teaching is the main activity of professors at Chilean universities, but some academics feel a pressure to publish, which they believe has a negative effect on their teaching. At least 72 percent of the respondents agree that teaching effectiveness should be the primary criterion for promotion of faculty. However, teacher training institutions and universities created in the last decade are more focused on teaching, whereas in the older institutions research is given relatively more emphasis and support. Chilean universities concentrate their efforts on training professionals rather than on preparing specialists at the master's level or researchers at the doctoral level. This is evident in the type of courses being offered for undergraduate study and by the passive teaching methods used. Half of the teachers' time is spent in lectures or conferences, with little variation among the fourteen universities.

Even though the undergraduate class averages forty-one students, many of the courses have the "magic" enrollment number of thirty students ("magic" because in Latin America there is a myth that thirty is the right number of students, even though there is no research supporting that, or any other, figure). But there are differences among the fourteen universities surveyed, especially in undergraduate introductory courses (table 7.2). The course sizes could be considered as rather moderate, given that the majority of courses are taught through lectures and conferences. In any case, for graduate courses, which are most likely seminars and discussion groups, the course size is smaller.

Chilean academics agree with the frequent criticisms in the mass media of the fact that high school graduates are poorly prepared. Less than half of the professors consider the academic preparation of their own students as good. Furthermore, 68 percent believe that undergraduate students have problems in oral and written communication skills, and 61 percent report that undergraduate students have problems in mathematical and quantitative reasoning skills.

Research

Even though research is recognized as an important and central university activity, just over half of all respondents "strongly agree" that a record of successful research activity is very important for their faculty evaluation. However, only one-third feel under pressure to do more research or think that if they did not publish it would be difficult to obtain tenure in their department. A reported 83 percent have taken part in research activities which lead to scholarly communication, and the average number of research activities and scholarly contributions completed within the previous three years is approximately twelve. Only 17 percent either did not respond or reported that they have not completed any research in the previous three years (table 7.3). However, a certain number of the published articles or papers delivered at conferences are essays rather than research reports. Furthermore, the format of the relevant question allows

Table 7.2

CLASS SIZE, BY TYPE OF COURSE

	SMALLEST CLASSES	LARGEST CLASSES	TEACHING ONLY ONE CLASS
Introductory undergraduate	26	55	45
Other undergraduate	21	40	27
Graduate and professional	11	25	15

SOURCE: Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (1991 survey of Chile).

Table 7.3

RESEARCH PRODUCTIVITY IN THE PAST THREE YEARS (NUMBER OF ACTIVITIES AND PERCENTAGE OF TOTAL ACTIVITIES)

	MEAN NUMBER OF ACTIVITIES	PERCENTAGE OF TOTAL ACTIVITIES
Books authored	0.3	21
Books edited	0.2	12
Articles published	3.0	69
Research reports	1.5	61
Papers presented	3.3	79
Newspaper articles	1.5	37
Patents secured	0.1	3
Computer programs	0.2	8
Artistic works	0.9	8
Videos or films	0.2	11
Other	0.7	13

SOURCE: Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (1991 survey of Chile).

Note: Professors reporting activities = 1,622; number of cases in total sample = 1,958; percentage reporting activities = 83. Where respondents left the item blank, a value of zero was assigned to obtain the mean.

one publication carried out by several researchers to be credited to each researcher. This artificially inflates the institutional average, making it impossible to quantify the national production of research projects using the Chilean data (except by dividing by the average research group number). Only 17 percent of the respondents have undertaken independent research projects. This caveat should be noted when considering the finding that 24 percent of the faculty surveyed have written (alone or in collaboration) scholarly books in the previous three years, and 79 percent have presented (alone or in collaboration) a paper at a scholarly conference. Even though 80 percent of university professors believe that research funding in their field is now easier to obtain than five years ago, 40 percent report that lack of adequate funding has hindered them from carrying out research. (This percentage may be much higher; one-third of the respondents did not answer this question.)

The research cadre in Chile includes less than 15 percent of professors. Seventy percent of scholarly articles are produced by less than 5 percent of academics.[9] These figures are lower than the 18 percent of academics reporting that they hold a doctoral degree, but quite close to the 5 percent declaring that their personal preferences lie primarily in research. Other indicators overestimate the research cadre. For example, some 33 percent declare a preference for research, and 61 percent were preparing reports for a funded research project. This percentage can be reduced to 50 percent if we assume that many of the respondents who did not answer the question are people who did not publish anything. Even though only half of the respondents answered the questions on sources of funds for research (table 7.4), some respondents may be part of teams benefiting from grants. The analysis of reported research must be tentative because the figures may overestimate actual productivity.

Although there are significant differences between the reported sources of research funds, the institutions themselves have been the predominant contributors (table 7.4). The institution supplies resources to 74 percent of the researchers. This may include the time allowed for research and does not necessarily mean financial resources. The second largest source is government entities, supplying resources to 45 percent of the researchers. There is a high variability in access to financial support

Table 7.4
SOURCE OF RESEARCH FUNDS (MULTIPLE RESPONSES)

	(NUMBER)	PERCENTAGES
The institution where I work	(779)	74
Government entities	(470)	44
Business firms	(176)	17
Private foundations	(117)	11
International organizations	(226)	21
Other	(57)	5

SOURCE: Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (1991 survey of Chile).

Note: (N) of respondents receiving funding from same source = 1,067.

and contracts with other sources such as international organizations, private firms and businesses, and private foundations.

Professional Service

The Chilean university has close relations with the rest of society through the large quantity of consulting work and public or voluntary service performed by academics. Participation in consulting work or educational outreach activities was reported by 79 percent of university staff. Of the total time dedicated to service and educational outreach activities, only 38 percent generates payment to the professor. (However, less than half the sample responded to this question, and therefore this percentage could be higher.)

As expected, there is an array of consulting work reported by the academic staff surveyed (table 7.5), but service work is most frequently done in connection with educational institutions. This may include some moonlighting in new private universities. There is less contact with local

Table 7.5

WITH WHICH KINDS OF ORGANIZATIONS HAVE YOU WORKED IN THE PAST YEAR? (MULTIPLE RESPONSES)

	(NUMBER)	PERCENTAGES
Business or industry	(538)	36
Educational institutions	(953)	62
Local governments	(329)	21
National governments	(213)	14
Private social service agencies	(180)	12
International governments	(92)	6
Other international associations	(117)	8
Other	(297)	19

SOURCE: Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (1991 survey of Chile).

Note: Those providing service: *(N)* = 1,541; 79 percent.

government. Yet, it is important to keep in mind that the decentralization process can be expected to continue and will probably make more demands on the universities for consultation and service. A reported 36 percent of professors are providing service to businesses or industries. This figure suggests a fair amount of contact between the university and the private sector.

Academic Freedom, Priorities, and Social Leadership

While university professors surveyed in 1993 feel that academic freedom and reasonable leadership exist within the university system, they believe that it is a centralized system and that scholars have a weak impact on society. While two-thirds say that academic freedom is strongly protected in Chile and almost 70 percent believe that they have complete freedom to determine the content of their courses or to decide the focus of their research, only 47 percent of the respondents feel that the administration supports academic freedom.

Despite the positive responses regarding university governance arrangements, 57 percent of professors surveyed agree that the administration is often autocratic. Two-thirds of them believe that the lack of faculty involvement is a real problem, even though only one-third of them believe that most academic functions are centralized. The perceived need for more participation probably explains why half of the higher education faculty agree that students should have a stronger voice in determining policy that affects them.

On the other hand, faculty express concern about the social pressures put on universities and about the need to provide adequate and diversified funding to higher education. Twenty-five percent of the professors believe that academic freedom is not strongly protected in Chile, a large figure but not too far away from the 16 to 22 percent range of five other countries.

There is widespread agreement among faculty on the rating for university priorities (even though they were not asked to evaluate these priorities). Professors believe that higher education should give high priority to preparing students for work, promoting academic research, and protecting free intellectual inquiry; and low priority to preserving the cultural heritage, continuing education for adults, and educating students for leadership. With respect to future admission policies, the majority of the faculty agree that admission should be provided to all students through government support, but only half agree that admission standards should be maintained. Chilean academics surveyed in 1991 would like to see the national government take a major role in five areas: basic education (indicated by 98 percent of the respondents), environmental quality (97 percent), AIDS and other health issues (86 percent), the world food supply (86 percent), and human rights (84 percent).

Regarding their impact on society, only 27 percent of the faculty believe that academics are among the most influential opinion leaders, which may reflect a high level of self-criticism. Furthermore, academic professionals do not foresee their position improving; 60 percent feel that respect for academics is declining.

Table 7.6

INTERNATIONAL ACTIVITIES OF FACULTY FOR LAST TEN YEARS

	MEAN NUMBER OF INSTANCES	PERCENTAGE RESPONDING TO QUESTION
Worked with an academic from another country on a research project	0.9	60
Traveled abroad to study or do research	1.1	75
Served as a faculty member at an institution in another country	0.3	27
Published articles or books in another country	1.7	58

SOURCE: Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (1991 survey of Chile).

Note: *(N)* of professors reporting one or more of these activities = 1,011; percentage of professors without international contacts = 52. Where respondents left the item blank, a value of zero was assigned to obtain the mean.

International Dimensions of Academic Life

Although there is a general consensus that it is important for scholars to have international contact, only half of the academic staff is engaged in international activities (table 7.6). In fact 93 percent consider that contact with professors from other countries is very important. Most agree that in order to keep up with developments in their discipline, a scholar must read books and journals published abroad, and that the university should do more to promote student and faculty mobility from one country to another. Seventy-five percent think that the university should have a curriculum with a more international focus. Professors average one international activity per year, but the average for male professors with doctoral degrees who work full time is much higher. The activities mentioned most often include travel abroad to study or do research, work in collaboration with an academic from another country on a research project, publication of articles or books in another country, and serving as a faculty member at an institution in another country.

Foreign academics rarely teach in Chilean universities. Only 30 percent of professors state that foreign academics teach courses in their university "frequently," and another 38 percent state that this occurs "occasionally." A similar response was given concerning international conferences and seminars, with 34 percent of professors responding with "frequently" and 40 percent with "occasionally." In addition, only a small number of foreign students attend Chilean universities, and even fewer Chilean students have had the opportunity to study abroad. Only 20 percent of the respondents state that foreign students frequently attend their institutions, and 10 percent say that Chilean students frequently study abroad.

THE EFFECTS OF THE MILITARY REGIME

The effects of the military regime are reflected in the opinions expressed by academics and in the emphasis on training people for professional work. While the ideological purge of faculty members cannot be detected in terms of a younger age distribution of academics, it may be reflected in the lower priority assigned to the need for universities to be more international in focus. Changes over time in opinions expressed by academics suggest a trend toward a more critical outlook. Comparisons between answers expressed in 1991—soon after the seventeen years of the military regime had ended—and in 1993—after two years of a democratic government that gave the academic professional the sense that the military regime had ended for good—showed similar results on objective factors, but revealed differences in responses about more subjective issues, such as administration.

With the exception of Russia, Chilean professors express more interest in teaching than professors in any other country. In 1993, 67 percent of Chilean academics reported that their interests lie primarily in teaching or lean toward teaching. Only 27 percent of Chilean professors believe that higher education should give highest priority to promoting scholarship and research, while averages for other countries range between 40 percent (Hong Kong) and 77 percent (Mexico). At least 63 percent of the faculty agree that teaching effectiveness should be the primary criterion for promotion of faculty.

Emphasis on training people for professional work is consistent with their assessment of the quality of the training received for performing as a teacher versus that of training received for performing as a researcher. Over 77 percent respond that the quality of the training received for their role as teacher was good or excellent, while only 52 percent provide similar ratings for their preparation to be researchers. Training for teaching is considered excellent by 23 percent of academics; 54 percent rated their training for teaching as good. Training for academic research is considered excellent by 14 percent of faculty; 38 percent consider their training for research as good.

NEW INSTITUTIONS CREATED BY THE COMPETITIVE SYSTEM ENACTED IN 1981

Given that the new private universities enroll only 8 percent of Chilean university students, only one new private university (created under the reforms implemented in 1981) was included in the sample. However, its academic staff show distinct differences when compared to those at the older institutions. Academics at the new universities come mainly from the private sector although a proportion had previously worked an average of eight years at other older universities. Their average annual income level is twice as high as for other members of the academic community, but little of that earned income comes from the academic institution. At the same time, they rate benefits for paid sabbatical leaves and travel funds for academics much more poorly than faculty in the rest of the universities in the sample.

A difference is also detected in terms of facilities for and time spent on research. While the intellectual atmosphere, the relationships between faculty and administration, faculty morale, clarity of the institutional mission, and the sense of community in the new institutions are close to the average for the university system as a whole, the laboratories, research equipment and instruments, and faculty offices are poorly rated in comparison with the rest of the higher education system. The main differences are related to research. Faculty at new institutions report an average of seven hours of research weekly, compared with ten hours for all respondents. Also, only 24 percent of faculty from the new university report that research activity is important in faculty evaluation, a figure far below other institutions, as well as the Chilean system as a whole. Similar differences are reflected in the responses to other survey items about research. "It is difficult for a person to achieve tenure if he or she does not publish" (8 percent in the new university versus 25 percent in the second lowest; and 35 percent for the national average); "I frequently feel under pressure to do more research than I actually would like to do" (5 percent, 12 percent, and 30 percent, respectively); "In my academic position at this institution, regular research activity is expected" (30 percent, 64 percent, and 75 percent, respectively); and "research is appraised or evaluated regularly" (11 percent, 69 percent, and 83 percent, respectively). In summary, research is mainly carried out as a result of the personal interest of the scholar.

While university governance of the new institutions is more centralized than is the case for older ones, budget implementation is less centralized. For example, the process of selecting key administrators is considered centralized by the highest percentage of academics—77 percent versus a mean of 59 percent for the whole system. On the other hand, the process of determining budget priorities is rated as centralized by 64 percent of the academics, while the mean is 74 percent for the whole system. These differences suggest that good management practices may be at work in the new universities.

EQUITY AND GENDER ISSUES

Chilean women account for one-third of the academic staff—close to the proportion of women in other countries in Latin America and Australia and much higher than in all other countries. However, there still remains a significant degree of discrimination toward female professors concerning their academic career paths, training, and salaries. There are only two universities in which more than 40 percent of the staff are women, and only the Universidad de Antofagasta (in the relatively isolated northern part of Chile) has a percentage of female staff larger than the percentage of female students (based on the total student enrollment).

Only 10 percent of women professors have obtained doctoral degrees, compared to 27 percent of male professors; the percentage of women who have master's degrees is 20 percent, versus 31 percent for men. Given that the ages for male and female academic staff members are comparable (age 44 for women, age 45 for men), alternative explanations for the disparity are needed. First, women may have other priorities in addition to academic training. Second, women may experience a lack of opportunities to earn a doctorate at a Chilean university and face social constraints against living alone while pursuing their studies in a foreign country. Third, women may be subjected to strong discrimination from within the university system. However, increased opportunities for women to do graduate study in Chile have recently been observed. Among the female academics surveyed, 23 percent are in the process of obtaining a new degree, while 21 percent of male professors are engaged in a similar effort.

Regarding interest in teaching versus research among professors employed full-time, a greater percentage of men than women express an interest in both, but leaning toward research. The situation is reversed for part-time professors. When classes are in session, female professors dedicate more hours to teaching and to service activities than do their male colleagues; during the same period, male professors tend to dedicate more hours to research than do female professors.

Only 22 percent of female professors earn an annual salary greater than U.S.$10,000, while 48 percent of male professors fall into this group. Additionally, 20 percent of women with doctoral degrees earn more than U.S.$10,000 per year compared to almost 60 percent of men with doctorates.

Despite the differences observed in salary levels, the female professors' opinion of their salaries is similar to that of the male academics surveyed.

Fifty-one percent of females and 53 percent of males consider their salaries to be at least fair.

TEACHER TRAINING INSTITUTIONS

Poor achievement levels found among primary and secondary school students suggest to some that Chilean teachers receive inadequate professional training.[10] It might be assumed that university professors working in schools of education may be less well educated and committed than the rest of the academic staff. Chilean society has assigned the teaching profession low status by paying them lower salaries than other professionals requiring a similar amount of training. Even though graduates from teacher training institutions are afforded little societal prestige and low salaries, professors training future teachers are not different from the rest of the academic profession.

Academics working in schools of education and their colleagues in the rest of the system gave highly similar responses to six items asked in 1991. The data suggest similar teaching loads; a slightly lower ability level of students enrolled in teaching institutions; a similar interest in participating in professional societies; similar incentives for research; and a tendency toward centralized administration in both settings.

Differences can be observed in the responses with regard to training of academic staff and respondents' confidence in their teaching abilities (table 7.7). The percentage of professors at teacher training institutions who rate as excellent their own training for teaching is quite remarkable in the case of Chile, where many teachers are not trained in the active teaching techniques.[11] In fact, school teachers are only exposed to the lecture style of teaching, with little or no opportunities for active learning and individual work.[12]

The differences revealed by these data do not result from lack of economic resources, but rather from the allocation of resources. Resources should be redirected to stimulate research in teacher training institutions. The presence of more research-oriented academic staff at teacher training institutions might introduce a more critical perspective on academics' ability to teach and, at the same time, would increase access to research

Table 7.7

CHARACTERISTICS AND ATTITUDES OF FACULTY AT TEACHER TRAINING INSTITUTIONS COMPARED TO ALL FACULTY (PERCENTAGES)

	FACULTY IN TEACHER TRAINING INSTITUTIONS	ALL FACULTY
Doctoral degree	5	18
Master's degree	40	28
Rate their training for teaching as excellent	34	23
Report that teaching effectiveness affects promotion	72	72
Report that students are not adequately prepared in math	81	61
Rate their training for research as excellent	9	14
Have received research grants	42	64
Received research grants worth more than U.S.$2,000	33	63
Traveled abroad to study and do research	29	39
Published articles or books in another country	22	30

SOURCE: Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (1991 survey of Chile).

grants. Also, an effort should be made to bring the academic staff of teacher training institutions into closer contact with international specialists.

DIFFERENCES WITH RESPECT TO THE DEVELOPED WORLD

As expected, there is a large difference in the percentage of Chilean academics who report that they hold a doctoral degree in comparison to academics in the developed countries (18 percent versus from 49 to 86 percent);[13] there are also large differences within Chilean universities. Unexpectedly, the differences between Chilean academics and academics in other countries are smaller than the differences observed among the fourteen universities included in the Chilean sample. Among the differences observed between Chile and more developed countries were the lower numbers of professors with doctoral training, less research activity, lower salary levels, and a higher percentage of income from outside work. Similarities between Chile and more developed countries were observed in the distribution of activities by discipline and in the participation of Chilean female academic staff.

Compared to all the other countries, Chilean academics, in the 1993 survey, report the lowest amount of time spent on research activities (11.4 hours per week versus 14 to 20 hours in more developed countries). However, the total amount of time spent by Chilean professors on academic and administrative activities is similar to figures reported by the faculty from more developed countries. The amount of time spent on service work in Chile is within the range of the more developed countries (6.6 hours per week versus a range of 5.6 to 8.3 hours). While 58 percent of Chilean academics work only with undergraduates, about one-third of the faculty in more developed countries work solely with undergraduates, with the notable exception of Germany (63 percent).

The disparity in salaries with respect to the levels observed in more developed countries suggests that the best Chilean researchers will be under pressure to move abroad. In fact, there is a consensus that salary differences are a key factor behind the fact that some one thousand Chilean researchers are working in more developed countries—a number roughly equal to that of high-level researchers working in Chile. Professors report an average annual salary of close to U.S.$10,000.[14] According to the 1991 Carnegie data, only 40 percent have an annual salary of over U.S.$10,000 (48 percent for male professors), including the earnings from nonacademic activities. Professors do not express much optimism concerning prospects for satisfactory job promotion. Only 23 percent are satisfied with their prospects for job promotion.

Carnegie's 1993 data reveal that the lowest percentages of total earned income coming from the respondents' academic institution are reported by Chile, Mexico, and Brazil. This pattern suggests a substantial amount of outside work. Given the amount of outside work, only 59 percent of the academic staff declare their salary in the universities surveyed to be more than 80 percent of their total earned income. There are few differences between universities in Chile and those in more developed countries in terms of the distribution by discipline of the highest degree awarded; we also found that there is a smaller percentage of Chilean academics in the humanities and social sciences than in Israel, Japan, England, or the United States.

PROSPECTS FOR EXPANSION OF HIGHER EDUCATION

Approximately 15 percent of each age cohort in Chile eventually enrolls in an institution of higher education. This percentage will undoubtedly increase under the influence of the more developed countries, where the participation rate is now two times the rate in Latin America.[15] The high local rates of return to schooling in Chile are powerful incentives for studying or investing in higher education institutions in Chile.[16] A very low percentage of present faculty have doctoral degrees, when compared with developed countries, and this percentage will decrease unless special efforts are made to encourage more doctoral-level study.

In spite of the small proportion of faculty holding doctorates, an increase in enrollments could generate a deterioration in standards in the universities. Both enrollment and staffing have been stable during the last two decades. Another indicator of stability is that the average age of faculty is forty-seven and the range of average ages between the universities surveyed is quite narrow (between forty-two and forty-eight). Further, professors have been employed in higher education an average of sixteen years and have spent an average of fourteen years at their present institutions.

Future expansion will make the task of upgrading the quality of academics in Chile more formidable. In eight of the Chilean universities surveyed, close to half of the professors have a doctoral or master's degree in addition to their professional degree, and the other half have only their professional degree (i.e., those in law, medicine, or engineering). Even in the two best institutions, only 60 percent of the academics have graduate as well as professional training. Only 10 percent of the faculty at these eight universities received their advanced degrees outside Latin America, and opportunities for foreign study have declined recently. This makes it especially important to provide opportunities for high-quality doctoral training within Chile. Academics are aware of the need for advanced degrees, and the 1991 data show that 22 percent of the faculty surveyed are pursuing graduate degrees at the present time.

CONCLUSION

Concerning the academic profession, strong agreement among Chilean professors is evident, due in part to the fact that many professors were trained at the older universities. Furthermore, the strong interest professors have in the functioning of their institutions is remarkable; this is reflected in the high response rate to the Carnegie Survey (84 percent), the care professors took in answering the questionnaire, and finally, the participation of staff during the twelve seminars in 1992 at which the preliminary reports from each university were discussed. This report—together with the set of individual reports for each of the fourteen universities—complements many other efforts in Chilean higher education to better understand the academic profession, the management of the university, and the quality of university graduates.

Chilean university professors, like professors in all of Latin America, are primarily interested in teaching, yet one-third of the faculty express an interest in carrying out research. University professors feel that they have been better trained for teaching than for research. Professors spend on average twenty hours per week on teaching. In general, professors report that they are very satisfied with the teaching aspect of their jobs, although this differs by academic positions. This is consistent with the fact that Chilean universities concentrate on training professionals rather than on preparing specialists at the master's level or researchers at the doctoral level.

Although nearly half of the academics have produced some research results in the previous three years, most research is conducted by a much smaller proportion of the faculty. But pressure to do research is slowly increasing. One-third feel under pressure to do more research than they would like, and 40 percent of the professors report that lack of adequate funding has hindered them a great deal in carrying out research (although 30 percent of the respondents did not answer this question). About half of all respondents strongly agree that a record of successful research activity is very important for faculty evaluation. Some research is now carried out as part of service provided by academics. Participation in consulting work or educational outreach activities is reported by 79 percent of respondents. From the total time dedicated to service and educational outreach activities, only 36 percent of this work generates payment to the professor (yet, less than half responded to this question and therefore this percentage could be higher).

There is a general consensus that it is important for scholars to have international contacts, yet only half of the faculty is actually engaged in international activities. Those in the group of internationally active professors average one activity per year: traveling abroad to study or do research; collaborating with an academic from another country on a research project; publishing articles or books in another country; or serving as a faculty member at an institution in another country.

Professors indicate that academic freedom and good leadership exist within the university system. They believe the system to be centralized and want to be more involved in the decision-making process. Two effects of the 1981 coup can be discerned in the survey results: some reluctance on the part of academics to express critical opinions and an increased emphasis on professional education. Even though the ideological purge of faculty did not significantly alter the general age distribution of faculty, it may be reflected in the high priority assigned to the need for the curriculum to be more international in focus.

Even though only one new private university was included in the sample, the survey did suggest some areas that would seem to be relevant for further analysis. Academic staff at new universities spend less time on research but have more freedom for implementing budget allowances. They also indicate that their institutions are more centrally administered.

Although one-third of the faculty in Chile is female—and 45 percent of students are female, there still remains a significant degree of discrimination against female professors, which is reflected in their academic careers, training, and salaries. Two facts illustrate the magnitude of the problem. Only 10 percent of female professors have obtained doctoral degrees, compared to 27 percent of the male professors. Only 22 percent of female professors earn an annual salary of over U.S.$10,000, compared to 48 percent of male professors.

The responses of academics from teacher training institutions were expected to reflect the fact that their graduates are poorly rated by society in terms of prestige and salary levels. However, only a few relevant differences were detected between the answers of faculty working in teacher training institutions and those of academics in the rest of the system. Lower prestige and salaries of graduates from teacher training institutions may be associated with the lower levels of training among the faculty. Teacher training institutions are more isolated with respect to international exchanges than are other institutions. An effort should be made to bring the faculty of teacher training institutions into closer contact with international scholars.

Chile has a very low number of professors with doctorates compared to more developed countries, and should make a substantial effort to improve graduate instruction for the roughly five thousand professors who need to be able to do research and to teach their students in a more active way. Chilean academics conduct less research, receive lower salaries, and earn a higher percentage of income through outside work. However, the approximately one thousand highly qualified Chilean scholars working abroad could improve higher education by collaborating with their colleagues in Chile during the summer months. Present pressure for further expansion makes it urgent to obtain additional public and private resources for research and doctoral training programs.

Manuel Gil Antón

THE MEXICAN ACADEMIC PROFESSION

> We start out with the discovery that in front of our very eyes, so close to us, a new university has been developing for the past 20 years, a university derived from a traditional mould which is still recognizable, but profoundly different in important aspects. Not only is a university much larger—institutionally and socially—but it also contains new individuals, professional academics in a highly diversified market, students from a wide range of social backgrounds, administrators and bureaucrats, employees and workers. A complex web of social relationships has grown up between them, while, with the outside world, the links with the social classes, the productive sector and employment, with political processes and the State, with the creation and acquisition of culture, have changed. What little information we have of this university is inaccurate.[1]
>
> Olac Fuentes Molinar

I INHERITED a great love of soccer from my father, Cubanaleco, who was an outstanding footballer in Mexico in the 1940s. When I can, I attend matches in the city stadiums. One of these, the Aztec Stadium, holds approximately 110,000 people, and when it is full, it is a breathtaking sight; with every seat, every space in the stands taken up by someone. Although it may seem strange, this experience has made me think about Mexican academics.

In 1960, there were 10,749 academic posts in Mexico. By 1992, the total number of academic appointments had risen to 113,238.[2] This number is very similar to the seating capacity of the Aztec Stadium, and on occasion at the end of a match, I have remained seated waiting for the stadium to empty. I then imagine every place taken by a faculty member, and I think about how little we really know about the people who teach in our universities.

Who are the university lecturers? How did they become lecturers? What recruiting procedure did they go through to get this particular job? How do they perceive their situation, and how do they relate to their peers, to their students, to the institutional authorities, to their chosen discipline? To continue with the stadium metaphor: Who sits in the best seats? Who has a box seat? How many sit in places so far away that the game can hardly be seen, and why do they sit there? How many left their seats after the economic crisis of the 1980s?

What little information we have about Mexican higher education, which is the product of a mercurial process of growth and expansion, is inaccurate: one of the areas where our knowledge is the most deficient is the nature of the academic profession in Mexico. Fortunately, during 1992 several research projects were undertaken that have allowed us to fill in some of these gaps.[3]

THE HIGHER EDUCATION SYSTEM IN MEXICO, 1960–1992

Between 1960 and 1992, higher education faculty nationwide grew by 954 percent—with 102,489 new academic positions created in Mexico's institutions of higher education. (Reference here to these appointments include full-time, half-time, and part-time.) This impressive growth in the number of jobs provides a useful perspective as we analyze the evolution of Mexican higher education during the last three decades.

One way to fully comprehend the enormous growth is to divide the number of new jobs by the number of years in question. On average 3,203 new jobs were created annually in higher education, or to put it another way, every day 8.8 jobs were generated. Obviously, given that the period we are dealing with is a long one, the calculation we have made does not allow us to appreciate the variations in academic job growth rates. If we study the process more closely, we see that in the first ten years about four jobs a day were added. Between 1970 and 1985, this increased to thirteen. Between 1986 and 1992, the figure dropped to around 8 jobs per day.[4]

In accordance with the increase in academic jobs, Mexico's higher education system has, since 1960, gone through three different stages in its evolution: the first, roughly between 1960 and 1970, was a period of moderate growth; the second, between 1970 and 1985, was characterized by rapid expansion; and the third, up to 1992, exhibits a slowdown in expansion (table 8.1). Brief mention should be made of the development of the system as a whole during each of these three periods. The second period, in particular, on which we will focus the most attention, has profoundly affected the general conditions in which academic work is carried out in Mexico today.

Moderate Expansion, 1960–1970

In 1960 there were fifty institutions of higher education, with a total student population of 78,753; this figure represented 3 percent of the age group in question (twenty to twenty-four years of age). The number of academic posts that year amounted to approximately ten thousand. Of the fifty institutions, thirty-one belonged to the public sector and nineteen to the private sector. The majority of students were enrolled in public-sector institutions, particularly in institutions in Mexico City. Ten years later, in 1970, there was a total of 115 institutions, and the number of students had grown to approximately 225,000—a situation reflected in the participation of the twenty to twenty-four age group, which grew to 6 percent. The number of academic positions reached twenty-five thousand. Sixty-five of the institutions in that year belonged to the public sector, and fifty to the private sector. The great majority of students were enrolled in universities and technical institutes from the public sector, and 53 percent attended institutions in the capital.[1] As can be seen, the growth of the system during this period was by no means insignificant and can be characterized as moderate only in comparison to the period that followed, which was one of unsurpassed growth rates.

Dramatic Expansion, 1970–1982

Although the number of academic positions continued to grow with the same intensity until 1985 as a result of the momentum generated by the

Table 8.1

EXPANSION OF HIGHER EDUCATION IN MEXICO: 1960–1992

	1960	1970	1982	1992
Institutions	50	115	271	372
Academic posts	10,749	25,000	79,000	113,238
Enrollment	78,753	225,000	840,000	1,126,805
Participation of the 20–24 age group (%)	(3)	(6)	(14)	(15)

SOURCE: Asociación Nacional de Universidades e Institutos de Enseñanza Superior (ANUIES), *Anuario Estadístico 1960* (Mexico City: ANUIES, 1961); ANUIES, *Anuario Estadístico 1970* (Mexico City: ANUIES, 1971); ANUIES, *Anuario Estadístico 1990* (Mexico City: ANUIES Press, 1991).

general expansion process, experts in Mexican higher education point to 1982—the year in which the economic crisis began—as the year when the period of rapid expansion reached its peak. In 1982, there were 271 institutions, with a total enrollment of 840,000—a figure that represents 14 percent of the twenty to twenty-four age group. Olac Fuentes Molinar suggests that "at the beginning of the seventies a rupture occurred in the organization of the university and in its pace of growth which would take us toward a national system, which is diversified and to a certain extent catering to the masses."[6] According to Fuentes Molinar, by the end of this period the national system had the following characteristics:

- *National coverage with marked regional inequalities.* At one level the higher education system had expanded across the various states. In 1982, there were ninety-eight localities with one or more institutions of higher education, compared to forty in 1970. Likewise, in 1970, 73 percent of enrollments were concentrated in the three main urban areas, whereas in 1982 this had fallen to 47 percent. However, while the number of institutions grew dramatically, there were great interstate inequalities, with some states having higher education enrollment rates of over 20 percent, and others with rates that barely reached 4 percent.

- *Transformation of the social composition of the student population, with loss of its elitist character.* Here Fuentes Molinar is cautious and does not simply put forward the concept of "massification" (catering to the masses). He points out that though empirical research is scarce, three social trends appear to have contributed to the modification of the social composition of the student body. One of these is the process of full access within the sectors that had traditionally attended university, whereas before only certain members of the younger generation had had access to higher education within these sectors. During this period all family members attended university—including women, who had not participated previously. The second social trend is the access to higher education of new social strata—the "new middle classes"—which were generated in the process of social and economic transformation that began in Mexico in the 1940s. The third trend is the admission of individuals from social groups previously excluded from higher education. Linked to this change in social composition, the admission of women was also a significant factor: in 1970, women made up 17 percent of the student body; by 1982, women accounted for one-third of all students enrolled in higher education in Mexico.

- *Qualitative differences with a tendency to fragmentation.* In the context of a rapid expansion process in a country with profound regional inequalities, it is natural to find marked qualitative differences. This has created huge differences in the quality of educational services offered by various higher education institutions, with implications for subsequent employment opportunities.

- *Conservation of traditional academic structures.* Although the creation of numerous new institutions of higher education in this period could have provided the opportunity for academic innovation, on the whole the new institutions simply reproduced the model inherited from pre-expansion days, centered on the school or faculty, on the curriculum of courses for traditional professions, and on the role of the professor as lecturer, and guide in the reading of textbooks.

- *Diversification of educational options, with a predominance of those included in the service sector.* There were roughly four hundred educational options in 1982, if we take into account the different names under which programs of study were offered. However, it is important to realize that three subjects—law, accounting, and administration—accounted for 27 percent of enrollments, a proportion similar to those in engineering and technology.

- *Concentration of funding from the federal government.* To illustrate this characteristic, Fuentes points out the different composition, by source of income, of public state universities. In 1970, the federal government's contribution to the budgets of these universities was 23 percent, while the contribution of state governments was 58 percent, and the institutions' own resources accounted for 19 percent. By the beginning of the 1980s, the proportions had changed: the federal government's contribution was 63 percent, 31 percent came from state governments, and 5 percent from the institutions' own resources.

- *Development of the academic job market, with a significant professional sector.* This aspect was mentioned earlier. Fuentes Molinar emphasizes the growth of the professional sector—that is, the proportion of full-time academic positions. In 1970, only 7 percent of the positions were full time; by 1982, these accounted for 18 percent, and if we add half-time positions (6 percent) as part of the professional sector, the proportion amounts to 24 percent. In Mexico these full-time and half-time positions are known as *personal de carrera*. In addition, in the context of rapid growth, Fuentes Molinar suggests the main link established by the new academics with the academic profession is with the institution that hires them, and with the subjects they teach as part of their discipline, as opposed to a link with their discipline in the widest sense, as is the case in other education systems that developed under conditions of less rapid expansion. We must not overlook the fact that 47 percent of the academic positions that now exist were created during this time.

- *Increase in the organizational complexity and influence of administrative bodies.* This period also saw the appearance and consolidation of administrative staff in institutions of higher education and their equivalent in government offices dealing with the university sector. The dominant role of administrators in institutional life may be due to the lack of coordination of academics linked through their disciplines. Furthermore, in this period, the most forceful and coordinated means of expression for faculty was through their unions' contractual links with the establishment.

These eight characteristics of the system resulting from the rapid growth since 1970 suggest a hypothesis with respect to the general logic that gave momentum to the process. According to Walter Metzger, the process of growth and differentiation of higher education systems can be substantive or reactive in character.[7] The type he calls reactive—one that proceeds neither fundamentally nor principally from internal mechanisms to the evolution of disciplines or knowledge, but rather is driven by external demands—is, in my opinion, the one that applies in the case of Mexico, especially in the period 1970–82.

Fuentes Molinar suggests that the central process driving the system consisted basically of the convergence of two important factors.[8] First, old and new social groups—the latter generated in the context of the great transformations in the social structure in the decades following the 1940s—created a growing demand for higher education that, he emphasizes, was focused precisely on "certificates which validate their possession." Second, and complementary to this, the government was willing to satisfy this demand [for higher education] "in the spontaneous way in which it appeared, that is to say, without limiting its size, regulating its policies, or modifying the academic organization characteristic of the traditional university. This primary process became more important than the wider cultural aspects." Thus, the higher education system in Mexico was conceived of as a service to promote the *distribution* of knowledge rather than its generation.

The constraints on setting up institutions as complex as universities and consolidated academic structures solidly built around disciplines are not the same as those caused by the rapid increase in the demand for higher education. It is important to emphasize that conditions during this expansive phase were not the most conducive to promoting the growth of the academic profession as the agent for institutional development. The weakness of the academic profession and the consequent limited role academics have been able to play in regulating institutional life are significant characteristics of Mexican higher education.

In spite of these drawbacks, the increase in study opportunities for hundreds of thousands of young Mexicans, the rise in the number of academic positions, and the proliferation of institutions of higher education in Mexico are unquestionably of great benefit to the country.

Slow Down in Expansion 1983–1992

The crisis that started in 1982, and the methods used to face up to it, produced important changes in the Mexican higher education system; the main one, perhaps, is that there were no longer sufficient funds for expansion and diversification. Fuentes Molinar points out five important characteristics of the period between 1983 and 1990.[9] First, between 1983 and 1990, the increase in enrollments was less than expected for the twenty to twenty-four age group. Second, the system was experiencing a huge economic decline, especially in the public sector: federal financing of universities fell from Mex$7,079 to Mex$4,442 million, in 1980 constant pesos, between 1982 and 1987, a reduction of 37 percent. Third, there was a loss of about 40 percent in the purchasing power of salaries, with repercussions for academic life. A midlevel, full-time lecturer who in the early 1980s had an income of around U.S.$1,000 a month, in 1989 was bringing home approximately U.S.$600. There was some abandonment of academic activities, and faculty shifted to other markets where salaries were better. In addition, and with much graver consequences for academic life, as salaries lost their purchasing power, many demoralized academics were expending minimal effort on their work.[10] Fourth, the frequency of labor conflicts increased. Finally, while the number of graduates increased, labor markets shrank, thus eroding the power of degree holders to find jobs.

Since 1990 there has been a focus on evaluation within higher education in Mexico. It seems that this is now the strategy on which all initiatives for running the system are based. At the institutional level, the mechanism for getting additional funds from the federal government is the evaluation of specific projects. Institutions have also made efforts to get funds from other sources, and the majority of public institutions have increased student fees.

A procedure has been set up for awarding additional income based on an annual or biennial evaluation of academic productivity for academics with full-time posts. In each institution, specific procedures have been set up to decide who is going to profit from this additional income. Experience has shown, however, that in certain institutions the distribution of this additional pay has been based on influence rather than on the recommendations of reputable evaluation committees. In other institutions, the standards regarding productivity are based on unrealistic deadlines and uniform guidelines that do not take into consideration variations among the disciplines. Also, the tendency to publish just for the sake of publishing has created worrying consequences within the system. Remarkably, teaching activity has received the least attention in these procedures.

GENERAL CHARACTERISTICS OF THE PROFESSION

In Burton Clark's classic definition, the academic profession is characterized by two poles of attachment: the one that connects academics to their institutions, that acts with centripetal force trying to retain them; and the attachment that, in turn, connects academics to their disciplines and that acts with centrifugal force to impel them to affiliate with scholars in their field of knowledge.[11]

The traditional classification of higher education sectors in Mexico includes public universities, public technical institutes, and private institutions. The common factor among public universities is that their main source of funding is the government, be it the federal government or in the case of state universities, both the federal and state governments. The great majority of these establishments are autonomous. They are under the supervision of the Ministry of Public Education via the Vice-ministry for Higher Education. Public technical institutes also receive the major part of their funding from the public treasury, but exclusively through the federal government. These institutes do not have statutes establishing them as autonomous institutions. They come under the auspices of the Ministry of Public Education via the Vice-ministry for Technological Education. Private institutions do not receive public funds, but are supported by student fees and, in several cases, donations from private foundations and trusts. The primary method of differentiating among institutions of higher education focuses on the public or private nature of their funding. Other characteristics that are commonly used to classify institutions in different countries have not been tried out in Mexico. An effort to incorporate additional factors so as to achieve a more complex classification would be very useful.[12]

The academic market in Mexico is predominantly public, with a 79 percent concentration of academic appointments in that sector (table 8.2). Unfortunately, Mexican official sources report only the number of posts each institution has and their distribution by type of appointment, but not the number of people belonging to each institution. This means that the actual number of people and their kinds of academic appointments remain unknown, since one person often holds several posts. For example, an individual may have several part-time appointments in different institutions, or a half-time job in one plus an hourly contract in another (table 8.3).

Due to the limited information available at the national level, the

Table 8.2

MEXICAN HIGHER EDUCATION SYSTEM, BY INSTITUTIONAL SECTORS, IN 1990

	ENROLLMENT	INSTITUTIONS	ACADEMIC POSTS
Public universities	730,266	63	68,354
	(68%)	(17%)	(65%)
Public technical institutes	160,170	95	15,132
	(15%)	(25%)	(14%)
Private institutions	187,755	216	21,572
	(17%)	(58%)	(21%)
Total	1,078,191	374	105,058
	(100%)	(100%)	(100%)

SOURCE: Asociación Nacional de Universidades e Institutos de Enseñanza Superior (ANUIES), *Anuario Estadístico 1991* (Mexico City: ANUIES Press, 1992).

Table 8.3

TYPE OF ACADEMIC CONTRACTS, BY INSTITUTIONAL SECTOR, IN 1990 (PERCENTAGES)

	FULL-TIME	HALF-TIME	PART-TIME
Public universities	23	7	70
Public technical institutes	51	17	32
Private institutions	13	7	80
All academic posts	25	8	67

SOURCE: Asociación Nacional de Universidades e Institutos de Enseñanza Superior (ANUIES), *Anuario estadístico 1991* (Mexico City: ANUIES Press, 1992).

distribution of academics by gender, academic degree, and disciplinary affiliation is not known. This situation makes it difficult to evaluate the sample used in the Carnegie study. However, a different national survey was carried out in the same year, providing some basis for comparison. The basic characteristics of academics were found to be the same in the two studies.[13] In fact, when comparing the results of the sample used in the international survey to those obtained from the national one we find that the general traits tend to coincide: distribution by sex, age, and seniority, by time and type of appointment, by institutional sector and geographic location of the institution, and by disciplinary affiliation.

MEXICAN ACADEMICS: THE IDENTITY OF THE PLAYERS

If we try to envision the faces of the men and women gathered in our imaginary stadium based on our limited expectations, we would fill the stadium with almost identical mannequins. As a general rule, both development policies and perceptions regarding higher education have been undifferentiated and uniform, ignoring the diversity of conditions and the complexity of the linkages existing among academics, their disciplines, and the institutions they work for. Based on this survey of 1,027 Mexican academics, we can go from studying academic posts to people, and in this way discover the variety of faces that make up the academic profession.[14]

Issues Regarding Diversity

To present and analyze findings, we group academics in various ways. One classification is based on institutional sector, which permits us to appreciate the impact the institution has on the characteristics of its academic staff. Another classification will divide the academics working in Mexico City from those working elsewhere in the country. This distinction is relevant due to the highly centralized development Mexico has experienced, which has concentrated a large part of the resources and opportunities for the development of academic activities in Mexico City.

When comparing the findings for the survey respondents with other

Table 8.4

DISTRIBUTION OF ACADEMIC POSTS AND SURVEY RESPONDENTS IN 1992

	ACADEMIC POSTS	CARNEGIE SURVEY RESPONDENTS
SECTORS		
Public universities	70,875	745
	(63%)	(73%)
Public technical institutes	16,292	171
	(14%)	(17%)
Private institutions	26,071	106
	(23%)	(10%)
LOCATION		
Mexico City	41,392	332
	(37%)	(33%)
Rest of the country	71,846	690
	(64%)	(68%)
Total	113,238	1,022
	(100%)	(100%)

SOURCES: Asociación Nacional de Universidades e Institutos de Enseñanza Superior (ANUIES), *Anuario estadístico 1992* (Mexico City: ANUIES Press, 1993), and the Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Mexico).

data on the distribution of academic posts (table 8.4), we find discrepancies that derive from a number of problems beyond the margin of error present in every sampling procedure. First, it should be noted that, as mentioned above, academic post was the category used by the official information source, the Asociación Nacional de Universidades e Instituciones de Enseñanza Superior (ANUIES, or the National Association of Universities and Higher Education Institutions). The aggregate number of academic posts does not correspond with the number of people working in higher education institutions. Moreover, when institutions were asked to give the number of academic faculty they employed, the figures did not correspond to those supplied by ANUIES. Personnel lists used in selecting the sample—usually the most recent payroll—gave total figures differing yet again, and sometimes to an incredible extent, from the above-mentioned parameters.

Two additional dimensions of differentiation useful in exploring the Mexican academic profession are academic type and, when appropriate, disciplinary diversity. Academic type refers to the degree of involvement with an institution of higher education. Some academics obtain more than 75 percent of their total income from their institutions. Since academic activity is considered their sole job and since the largest part of their income is earned through this activity we can classify them as *fully involved* in academic activity. On the other hand, those academics who have an additional nonacademic job, who obtain less than 50 percent of their total incomes from their academic activities, and whose linkage to the academic profession is marginal, are classified as *marginally involved.* These two groups do not comprise the whole of the sample, but focusing on them will allow us to establish some assumptions about the consequences that full or marginal involvement has in academic life. Due partly to the peculiar developments in this occupational sector and partly to the effects of the subsequent economic crisis, the terms "full-time" and "part-time" have lost their precise meanings. Not all academics who have full-time jobs work exclusively or primarily for higher education institutions, and similarly, it is relatively common to find academics who, by adding up part-time contracts in different institutions, devote themselves full-time to academic activities. Hence, we differentiate between those who are fully involved in academic activities and those only marginally involved, regardless of type of contract.

To observe, in a preliminary fashion, the impact of disciplinary affiliation, disciplinary referents are divided into two types. We have called the first type *areas with external market* and the second *areas without external market.* Areas with external markets include three disciplines traditionally characterized by having a large job market independent of higher education: business, engineering, and the health sciences. Areas without external markets include four disciplines tending to have a more circumscribed academic range of action: the biological and physical sciences, the humanities, and mathematics.

General and Educational Background

With regard to gender distribution (table 8.5), it is interesting to note that 36 percent of the group as a whole are women. Within the institutional sectors there are greater variations: women constitute 37 percent of the total academic staff in public universities, 25 percent in public technical institutes, and 43 percent in private institutions. The predominance of certain disciplines in public technical institutes—basically different areas of engineering—accounts for the lower participation of women in this sector. In the case of private institutions, where the rate of female participation is higher, it would be interesting to explore whether this is mainly due to the predominance of the areas of knowledge preferred by women within higher education.[15] If we compare types of academics, the proportion of women is considerably higher in the "fully involved" group. The situation is similar if we observe gender representation in the disciplinary affiliations we examined. More women are found in disciplines with no external market.

A conjecture to be validated by further research is that the academic occupational sector favors employing women more than do other professional markets. In academia, access and competition criteria are based on formal requirements that, to a certain extent, limit the traditional criteria that have historically favored men in the Mexican labor market. At the same time, the more flexible working hours and greater relative freedom of academic life may encourage women to choose an academic career.

Age variations are not very significant; however, if from the average age we subtract the average number of years worked as an academic, we have an idea (only an approximate value since the number of years worked is not necessarily consecutive) of the age of academics in the sample when they joined the profession: twenty-eight years of age. This figure corresponds very closely to the findings in the other Mexican study.

Table 8.5

PROFILE OF THE PROFESSORIATE, BY SEX, AGE, AND YEARS EMPLOYED

	PERCENTAGE		MEAN		TOTAL
	MALE	FEMALE	AGE	YEARS EMPLOYED	(*N*)
All faculty	64	36	39.2	11.1	(1027)
SECTORS					
Public universities	63	37	38.8	10.7	(745)
Public technical institutes	75	25	42.2	13.8	(171)
Private institutions	57	43	37.2	9.8	(106)
LOCATION					
Mexico City	63	38	40.7	12.6	(332)
Rest of the country	66	34	38.5	10.4	(690)
ACADEMIC TYPE					
Fully involved	62	38	39.0	11.6	(418)
Marginally involved	73	27	39.0	9.7	(239)
DISCIPLINARY AFFILIATION					
With external market	73	28	40.3	11.8	(356)
Without external market	56	44	39.3	12.1	(253)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Mexico).

Table 8.6

DISTRIBUTION OF FACULTY BY HIGHEST DEGREE EARNED (PERCENTAGES)

	WITHOUT BACHELOR'S	BACHELOR'S	SPECIALTY[a]	MASTER'S	PH.D.
All faculty	3	52	8	30	8
SECTORS					
Public universities	2	52	8	30	7
Public technical institutes	1	48	9	29	14
Private institutions	9	53	2	30	6
LOCATION					
Mexico City	3	41	2	33	20
Rest of the country	2	57	10	28	2
ACADEMIC TYPE					
Fully involved	3	45	7	37	9
Marginally involved	2	66	12	18	2
DISCIPLINARY AFFILIATION					
Without external market	4	40	2	35	18
With external market	1	60	11	24	4

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Mexico).

[a] The "Especialidad" (specialty) degree, after the bachelor's degree, differs from the master's or Ph.D. degree and is generally oriented to training for professional practice.

Another dimension deals with highest degree earned (table 8.6); findings indicate that bachelor's degrees and doctorates have been earned by 52 percent and 8 percent respectively.

The fact that, for half of the faculty surveyed, the highest degree earned is a bachelor's degree is a reflection of the haste with which they were recruited during the period of rapid expansion. Moreover, traditionally, this degree was the minimum requirement for obtaining a position within the system, even prior to the expansion. During the phase of rapid expansion, even this minimum level of qualification was unsustainable, and faculty positions were given to people without a bachelor's degree. We can still find a trace of this practice in the small number of academics who do not have a B.A.

Another important aspect of the Mexican academic faculty is that 70 percent of this group have parents who did not attend an institution of higher education, so their having attained a job in a higher education institution represents a climb in terms of social prestige.

By comparing the academic degrees held in 1992 with available information regarding the degrees held when the respondents were first hired as academics, and recognizing the amazing intergenerational educational mobility this entails, we begin to understand the complex formation process of the Mexican academic profession. Many of the problems of academic identity afflicting Mexican institutions derive from this formation process. Only by considering the overall context of higher education in Mexico is it possible to understand several traits that contrast strongly with those of other countries.

In an international context, the low percentage of doctoral degrees in Mexico may seem surprising. This phenomenon may be explained not only by the speed of the expansion and the small number of people who already had higher degrees prior to the expansion, but also by the low importance still given to advanced study for the development of the traditional professions in Mexico. Regarding geographic distribution, we find that among academics in Mexico City a smaller percentage has the bachelor's degree as the highest degree earned, and a much higher percentage has the doctoral degree as highest degree earned, compared to the national average. The figures for the rest of the country are closer to the distribution of the Carnegie sample as a whole, with a lower percentage of doctoral degrees. Within the institutional sectors, it is surprising to find a high percentage of doctoral degrees in public technical institutes. However, this can be explained by the wide range of specialized areas needed for engineering courses. These institutes, especially the National Polytechnic Institute (Instituto Politécnico Nacional) have faculty with advanced academic degrees in the sciences lending support to engineering courses.

Looking at academic degrees earned across academic types and disciplinary affiliations, the fully involved type, as compared to the marginally involved one, tends to follow a path of academic promotion by obtaining academic degrees. The marginally involved type is the only group in which more than 60 percent of the members have only the bachelor's degree. Also, this type has the highest percentage of academics with a specialty degree and the lowest proportion of master's and doctoral degrees. Clearly, this group gives greater emphasis to education linked with their jobs outside the university.

The data suggest that the qualification paths differ according to disciplinary affiliation. Disciplinary affiliations strongly dependent on the academic market seem to follow a classical qualification path—53 percent have master's and doctoral degrees—while those in fields with an external labor market have a higher proportion of bachelor's and specialty degrees—70 percent.

Working Conditions

In Mexico, tenure can be given to part-time as well as to full-time professors: it is possible to have tenure for a three-hour-a-week teaching contract or for a forty-hour-a-week teaching and research post. The most interesting variations were found between institutional sectors and between academic types (table 8.7). Public technical institutes have a higher percentage of full-time and tenured appointments, followed by public universities. Private higher education institutions have much higher percentages of part-time and nontenured staff.

Seventeen percent of academics belonging to the fully involved type

Table 8.7

DISTRIBUTION OF FULL-TIME, PART-TIME, AND TENURED APPOINTMENTS (PERCENTAGES)

	FULL-TIME	PART-TIME	TENURED
All faculty	62	39	64
SECTORS			
Public universities	60	40	64
Public technical institutes	78	23	80
Private institutions	45	55	34
LOCATION			
Mexico City	67	33	66
Rest of the country	59	41	63
ACADEMIC TYPE			
Fully involved	83	17	73
Marginally involved	21	79	51
DISCIPLINARY AFFILIATION			
Without external market	70	30	70
With external market	56	44	66

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Mexico).

have only part-time appointments, while 21 percent of faculty belonging to the marginally involved type have full-time contracts. The apparent contradiction here can be explained by the fact that the contract cited for the survey pertains only to the institution at which the respondent received the questionnaire. Part-time faculty in the fully involved group probably have other paid academic contracts elsewhere. The explanation for full-time faculty assigned to the marginally involved group is that in subject areas with a dynamic external labor market and economic benefits far beyond the academic ones, the institutions retain personnel by offering full-time pay in exchange for part-time commitments. Otherwise, the reasoning goes, it would be impossible to keep these faculty members due to the large difference in terms and conditions of employment outside academia. For instance, in certain areas of engineering—such as systems and computer engineering—students might earn twice as much as the highest-paid professor at their school by working while they study. A teacher of English as a foreign language may earn one-sixth per hour in a public institution what he or she would earn in a specialized language teaching institute.

Questions from the survey explore the attitudes of academics about their working conditions, income, and general situation, as well as on their estimation of faculty morale and their willingness to choose an academic career if they had it to do over again (tables 8.8 and 8.9). More than 50 percent rate their salaries as poor (53 percent), and this opinion is especially strong among respondents in Mexico City (66 percent) and in the marginally involved group (65 percent). Views on the prospects for salary improvement over the next five years are generally pessimistic. The probability that an academic will decide to leave his or her institution within this same period of time does not depend solely on salary. Nonetheless, it is a deeply felt problem, since 32 percent of the faculty surveyed report that income is still a powerful reason for leaving an institution. Regarding the general working situation, 27 percent feel extremely dissatisfied; this consideration is highest among faculty in private institutions.

A large percentage of respondents indicate that faculty morale is low; more than half the faculty within all but one group rate morale as only fair or poor, and this perception is strongest in public technical institutes, where the best *formal* conditions are found. It is also strong in the fully involved group and in those whose subjects are limited to the academic job market.

In spite of all of the negative attitudes, when confronted with the hypothetical statement "If I had it to do over again, I would not become an academic," most academics strongly disagree; only 6 percent of the respondents strongly agree. Even though there were variations among the

Table 8.8

FACULTY OPINIONS ON SELECTED ASPECTS OF THE JOB (PERCENTAGES)

	POOR SALARY	POOR PROSPECTS FOR IMPROVED SALARY	VERY LIKELY LEAVING INSTITUTION IN NEXT FIVE YEARS	INCOME IS IMPORTANT IN DECISION TO LEAVE ACADEME	DISSATISFIED WITH JOB SITUATION IN ACADEME
All faculty	53	40	12	32	27
SECTORS					
Public universities	53	39	11	29	26
Public technical institutes	54	44	18	38	26
Private institutions	55	44	14	37	41
LOCATION					
Mexico City	66	53	13	48	37
Rest of the country	47	34	12	24	23
ACADEMIC TYPE					
Fully involved	48	37	10	28	23
Marginally involved	65	44	13	35	33
DISCIPLINARY AFFILIATION					
Without external market	56	40	9	32	31
With external market	52	40	15	34	25

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Mexico).

Table 8.9

FACULTY MORALE AND ATTITUDE TOWARD CAREER CHOICE (PERCENTAGES)

	FACULTY MORALE		IF I HAD IT TO DO OVER AGAIN, I WOULD NOT BECOME AN ACADEMIC	
	FAIR	POOR	STRONGLY AGREE	STRONGLY DISAGREE
All faculty	42	15	6	74
SECTORS				
Public universities	42	14	5	73
Public technical institutes	40	22	6	74
Private institutions	46	9	7	75
LOCATION				
Mexico City	46	18	5	68
Rest of the country	40	14	6	76
ACADEMIC TYPE				
Fully involved	46	16	8	76
Marginally involved	38	10	5	70
DISCIPLINARY AFFILIATION				
Without external market	46	16	4	76
With external market	40	14	8	70

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Mexico).

different groups, in each of the groups more than two-thirds reject the idea of not having any links with academic life.

At present, the issue of academic salaries is controversial and causes serious conflicts, because salaries depend to a large extent on public funding and on general wage policies. Within the framework of current anti-inflationary programs, no more than a 10 percent wage increase can be expected. There is obviously widespread dissatisfaction over low academic salaries. A salary structure based on performance, variations in disciplines and appointments, and on market conditions would be much more suitable than a uniform salary increase. Of course, this would demand the recognition of the existence of real differentiation in working conditions, fields, and institutions.

ACADEMIC ACTIVITIES

Teaching

Teaching is the predominant activity in the Mexican higher education system (table 8.10). The average number of teaching hours per week is 12.8. Academics in Mexico City and those elsewhere in the country teach 10.1 hours and 14.1 hours each week, respectively. The private institutions have the lowest average of all groups of institutions. With regard to academic type, fully involved faculty have three additional teaching hours as compared to marginally involved academics. With respect to subject areas, teaching time is more uniform.

Regarding the impact of the number of students on teaching performance, almost one-fourth of the respondents in public technical institutes think that the number of students (i.e., large class size) has a powerful negative influence, with similar findings among academics working in subject areas with an external job market.

During the expansion of higher education, attention had been given to teaching, but teaching suffered a loss of recognition during the national economic crisis. When the crisis began, another development occurred as well: research began to appear as a common undertaking in most institutions, whereas it had previously been concentrated in research centers and institutes belonging to the National Autonomous University of Mexico, the National Polytechnic Institute, and at a few other large universities. Engaging in research became a generalized ambition, with

Table 8.10

DIFFERENTIATION AMONG GROUPS ON VARIOUS ISSUES CONCERNING TEACHING

	PERCENTAGE		
	CLASS SIZE IS STRONG NEGATIVE INFLUENCE	TEACHING SHOULD BE PRIMARY CRITERION	MEAN HOURS PER WEEK IN GROUP INSTRUCTION
All faculty	20	57	12.8
SECTORS			
Public universities	20	59	13.1
Public technical institutes	24	60	14.4
Private institutions	15	41	8.1
LOCATION			
Mexico City	17	44	10.1
Rest of the country	22	63	14.1
ACADEMIC TYPE			
Fully involved	21	52	13.7
Marginally involved	21	65	10.7
DISCIPLINARY AFFILIATION			
Without external market	14	48	12.4
With external market	23	65	13.7

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Mexico).

faculty seeking to "escape" the consequences of rapid expansion and gain higher status. Working conditions of researchers were regarded as better than those of teachers. This not only eroded the status of full-time teachers, but also promoted the idea that any intellectual activity other than teaching could be considered research.

In spite of this recent trend, a high proportion in all groups agree that teaching performance should be the fundamental criterion for academic promotion (table 8.10). The proportion in agreement is higher for academics working outside Mexico City and, paradoxically, decreases for academics at private institutions, in spite of the fact that teaching is the main activity in these institutions. Academics at private institutions believe that the main criterion for evaluation should be professional success beyond academia. Both the marginally involved academic type and those with disciplinary affiliations with an external market believe strongly that teaching performance should be the primary criterion.

These answers were given during the initial stages of a process of salary review through periodic evaluation. In general, this process is only open to full-time, upper- and medium-rank academics, and evaluation stresses a set of activities related to research: advanced academic degrees and the publication of books and articles. Within this context, especially in the public sector, the devaluation of teaching as the fundamental criterion for promotion is understandable.

Despite the loss of prestige that teaching has suffered, 22 percent of the respondents are primarily interested in teaching over research (table 8.11). Another 43 percent state that they would prefer to combine both teaching and research, but lean toward teaching. Clearly, 65 percent have a preference for teaching while only 4 percent would like to devote their time primarily to research. The strength of the commitment to the teaching vocation varies among the groups. In Mexico City, 52 percent prefer teaching, with 72 percent sharing the preference in the rest of the country. At public universities, 65 percent prefer teaching, at public technical institutes 68 percent, and at private institutions 67 percent. And although there are slight variations, the percentage of academics from private institutions who would prefer to do primarily research is zero.

Table 8.11

PREFERENCE FOR TEACHING OR RESEARCH (PERCENTAGES)

	PRIMARILY TEACHING	LEANING TOWARD TEACHING	LEANING TOWARD RESEARCH	PRIMARILY RESEARCH
All faculty	22	43	31	4
SECTORS				
Public universities	22	43	32	4
Public technical institutes	19	48	28	4
Private institutions	26	41	33	0
LOCATION				
Mexico City	19	33	42	7
Rest of the country	23	48	26	2
ACADEMIC TYPE				
Fully involved	14	46	37	3
Marginally involved	42	36	20	2
DISCIPLINARY AFFILIATION				
Without external market	11	40	42	7
With external market	33	42	23	2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Mexico).

Research

Of our respondents 61 percent indicate that their academic positions in some way require them to carry out research. In the 1992 survey, 79 percent of academics stated that they were engaged in a research project. When asked about the previous three years, 37 percent of the group of academics who said they were engaged in research reported that they had received grants or special funding support. Over half of those faculty (56 percent) estimate the amount received for this three-year period at less

Table 8.12

SCHOLARLY CONTRIBUTIONS IN THE PAST THREE YEARS (MEAN NUMBERS)

	NEWSPAPER ARTICLES	ACADEMIC ARTICLES IN BOOKS OR JOURNALS	RESEARCH REPORTS OR MONOGRAPHS	SCHOLARLY BOOKS AUTHORED
All faculty	1.9	1.4	0.7	0.3
SECTORS				
Public universities	2.3	1.5	0.6	0.3
Public technical institutes	0.6	1.1	1.1	0.3
Private institutions	1.2	1.4	0.6	0.2
LOCATION				
Mexico City	2.1	2.8	1.4	0.5
Rest of the country	1.8	0.8	0.3	0.1
ACADEMIC TYPE				
Fully involved	1.8	1.2	0.9	0.2
Marginally involved	1.9	0.7	0.3	0.1
DISCIPLINARY AFFILIATION				
Without external market	1.6	2.5	1.3	0.3
With external market	1.1	0.7	0.4	0.2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Mexico).

than U.S.$5,000. Sixty-one percent of respondents received funds from their own institutions. Fifty-four percent received funds from government entities. In general research activity is carried out collaboratively, although independent research projects are not infrequent.

The most frequent type of contribution is articles published in newspapers, followed by articles published in journals or books (table 8.12). Next come research reports and monographs, then scholarly books authored. When making a comparison between groups, we observe that academics at institutions in Mexico City are more prolific than those elsewhere in the country, and the former have the highest average in terms of articles published in books or journals.

Among the institutional sectors, differences are not as marked. Fully involved academics have a higher average for all types of contributions than do marginally involved ones, with the exception of articles written for newspapers. With respect to disciplinary affiliation, there was a remarkable difference between academics in subject areas without external job markets: their average is almost four times higher for research papers, three times higher for reports and monographs, and slightly higher for newspaper articles. The available information strengthens the central assumption of this chapter: that diversity is a crucial factor in the analysis of academic bodies, but that diversity does not prevent the use of typical groups for analytical purposes.

Governance and Administration

A large percentage of Mexican academics from all three institutional sectors believe that there are three highly centralized processes within their institutions: the selection of key administrators (73 percent), the determination of budget priorities (68 percent), and the establishment of admission standards for undergraduate students (46 percent). Regarding those processes that are considered more decentralized, the responses are lower: selection of new lecturers (17 percent), determination of the overall teaching load of faculty (16 percent), and approving new academic programs (13 percent). Only 12 percent consider themselves very influential

Table 8.13

FACULTY INFLUENCE IN HELPING TO SHAPE KEY ACADEMIC POLICIES (PERCENTAGES)

	VERY INFLUENTIAL	SOMEWHAT INFLUENTIAL	A LITTLE INFLUENTIAL	NOT AT ALL	NOT APPLICABLE
Department level	12	32	24	28	5
Faculty, school, or similar level	5	22	28	39	6
Institution level	2	13	22	58	6

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Mexico).

at the departmental level in helping to shape key academic policies, and this figure decreases if a higher administrative level within the institution is considered (table 8.13). These findings indicate that, as a rule, the style of governance is very centralized throughout the country.

Academics are far from thinking that they control the key decision-making processes within their institutions; it would be revealing to investigate the reasons behind this situation. First, as we have tried to show, creating and consolidating academic groups was not the prime concern during the expansion of higher education in Mexico. During the years of economic crisis, higher education policies were not aimed at protecting existing academic groups or preserving an institutional environment that would foster their development. The crisis had a devastating effect on these emerging academic groups; 59 percent of them consider bureaucracy a real threat to higher education.

This perception is by no means a trivial one. Apparently, key decisions in academic life are not being made by the people who should be making them, since, as a result of the way higher education institutions in Mexico were structured, academic bodies were not able to integrate themselves in such a way as to play a relevant institutional role.

Other Major Issues

In general, academics do not believe that top-level administrators are providing competent leadership, with 36 percent saying they are not providing competent leadership, and another 8 percent agreeing but with reservations, while only 17 percent think the opposite. However, when asked whether they think that lack of faculty involvement is a real problem, 49 percent strongly agree and 18 percent agree with reservations. It is not a positive finding that lack of confidence in leadership, coupled with a lack of interest in governance on the part of academics, exists at a time when there are great problems in higher education. According to the respondents, freedom to determine the content of courses and research is not generally at risk: only 17 percent and 12 percent, respectively, find a lack of freedom in these two areas at their institutions. On this same issue, at a national level, 62 percent of academics believe that this freedom is guaranteed, with 28 percent disagreeing. As far as the evaluation of activities is concerned, it is interesting to note that for both teaching and research the most frequent evaluating entity consists of heads of departments or administrative staff, rather than of the academics' peers, whether external to or from within the same institution.

With regard to international connections, the whole sample agrees on their relevance and importance. However, only 202 out of the 1,027 academics surveyed answered the question about the number of articles or books published in another country. Out of these 202, 126 answered zero, leaving 76 academics—7 percent of the total sample—who have published elsewhere during the previous three years. This indicator shows that there is a strong parochial tendency in the academic community. The trend to confine academic exchanges within national and institutional boundaries weakens disciplinary strength among academics and creates an important challenge for Mexican universities—to strengthen disciplinary affiliation and promote interinstitutional and international exchange and mobility. The centrifugal dynamics characteristic of consolidated academic systems—which greatly enrich academic life—cannot be generated by the institutional administrations; they emerge from the disciplinary affiliation of academics and the expansive perspective that the disciplinary affiliation engenders.

Finally, faculty believe that higher education should give the highest priority to promoting scholarship and research (77 percent), followed by strengthening the nation's capacity to compete internationally (70 percent), and helping to resolve basic social problems (67 percent).

CONCLUSION

To promote scholarship and research, to strengthen the nation's capacity to compete internationally, and to solve the serious problems facing society, we need to increase our knowledge of the diversity and complexity of the academic profession. An example of a problem that is difficult to solve adequately without an appraisal of the diversity and complexity of Mexican academics concerns faculty evaluation. One model for evaluating academic quality has become widely implemented. This model includes the following criteria: a doctoral degree, publication of books and articles in other countries—an indication of peer review—membership in the National System for Researchers (Sistema Nacional de Investigadores), an institution created in 1984 to give additional income to those academics who obtain a higher evaluation than their peers at a national level. The problem with this model is that it is increasingly considered the only possibility, and this has a number of serious negative effects. Excellence in teaching and in applying knowledge would also seem to be necessary in an academic profession seeking to address the priorities mentioned earlier. Others believe the issue is primarily one of salary, and seek a uniform salary increase.

Both sides in this debate oversimplify the problem, ignoring the complexity and diversity of the academic profession. They also seem to lack a historical perspective. An analysis of the Carnegie data shows us that academic life in Mexico is far from uniform. An understanding of institutional diversity, the nature of institutional and disciplinary affiliations, and regional variations is essential not only for designing policies but also for fostering the study of the academic profession.

The academic profession in Mexico is a relatively recent development whose role in society has not yet had the time or the right circumstances for consolidation. Higher education in Mexico has been an institutional system guided by a certification process, but it needs to become an institutional system aimed at the effective access, in the widest possible sense, to knowledge. This transition is not a simple one, and to achieve it the reorganization of academic life will prove essential. This is why it is so important to emphasize diversity in designing strategies for academic reform, to offer models for quality and encourage the growth of the academic profession.

What has been done so far must be analyzed critically, and the achievements should guide the reconstruction of the higher education system in Mexico. An understanding of the diversity within the system will play an important role in the design of the future university.

THE UNITED STATES

J. Eugene Haas

THE AMERICAN ACADEMIC PROFESSION

THE PROFESSORIATE is the core of the U.S. higher education system. Teaching college students and conducting research on campus are carried out only by academics. The health of the entire enterprise rests primarily on the competence and morale of the professoriate. Here we select a few themes to provide a snapshot of the condition of the academic profession in America during the early 1990s. All details of the picture were provided by academics themselves by way of a mailed questionnaire. A total of 3,528 academics of all ranks, selected using a stratified probability sample, took the time to respond to more than two hundred items in the Carnegie international survey.[1]

A brief description of the characteristics of U.S. academics is provided initially. We then discuss what these faculty members do, how they allocate time to teaching, research, service, administrative activities, and all other professional work. Next, the level of faculty satisfaction is examined in some detail. We summarize faculty views on the condition of higher education in society, the status of the academic profession itself, the conditions of professional employment, and faculty perspectives on their own careers. In the section "Students, Classes, and Teaching Styles," we review the findings on how faculty assess the quality of today's students, the variations in time given to classroom/laboratory versus individualized instruction, and differing teaching styles at various levels of instruction. The significance of specialization among academics is then examined, with a special focus on the "research cadre" and the "teaching cadre."

Regardless of specialization, the vast majority of U.S. academics are expected to produce creative contributions to their field, generally through their publications in scholarly journals and books. Since publications are routinely counted and used as one important criterion for promotion and salary decisions, it is interesting to review the marked variation in number of publications by type of institution, by disciplinary category, and by sex. Next, the teaching and research functions of academics are analyzed from a different perspective—the quality of the training they received for each of these core responsibilities. Each responding academic gave us an assessment of the quality of the programs personally experienced.

The section "Mobility Among the Professoriate" brings together the data from numerous questionnaire items dealing with the academic's perspective on salaries and benefits; adequacy of space, equipment, and support services; collegiality; professional autonomy; job security; and prospects for promotion, among other considerations. The final section of this chapter compares the congruency between faculty attitudes toward international connections and the extent to which such interaction does occur in the day-to-day life of American faculty and their institutions. There may be an emerging global economy, but these data suggest that U.S. academics are not yet major players in any evolving systematic global exchange of faculty and students, or ideas generated in U.S. higher education, even though the United States hosts more foreign scholars than any other country.

An Overview

There are about 584,000 faculty employed in universities and colleges offering a baccalaureate or higher degree. Some 73 percent of them are employed full-time. Public institutions account for about six of every ten academics working at this level in higher education. Seven in ten hold an earned doctorate, half are aged forty to fifty-four years, and more than six in ten have the security of a tenured position (table 9.1).

U.S. academics are experienced and relatively stable. The average faculty member has had more than sixteen years' experience in higher education. Males are considerably more experienced—eighteen years versus thirteen years for female academics. Forty-four percent of all respondents and 43 percent of full-time faculty have been employed only

Table 9.1

PROFILE OF THE PROFESSORIATE, BY TYPE OF INSTITUTION

	RESEARCH FACULTY	OTHER FACULTY	ALL FACULTY
Age (mean years)	(49)	(48)	(48)
Experience in higher education (mean years)	(17)	(16)	(16)
Percentage of males	75	68	70
Percentage holding Ph.D. degree	68	60	62
Percentage tenured	63	59	60

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

at their current college or university, and never elsewhere. Even the more experienced, the half that have been in the profession longer, have not changed jobs very many times. One-third of them have had but one employer throughout their entire career in higher education.

Unlike the situation in Latin America, full-time employment is still the dominant pattern for U.S. faculty members. In our survey of faculty in institutions conferring at least a bachelor's degree, 89 percent report having full-time contracts. Men make up three-fourths of the full-time faculty, but only 46 percent of the part-time faculty. Overwhelmingly, academics are tied to a single source of earned income, their college or university.

The proportion of female faculty is increasing slowly and has changed only slightly in the last decade. Our survey showed that for the most desired positions, full-time with tenure, men still predominate, with 79 percent. Part of that discrepancy is a reflection of the late entry of women into the profession. Persons entering recently have not yet had time to become eligible for tenure. But women with extensive experience are still underrepresented in tenured positions. Of all faculty with full-time positions and more than fifteen years' experience in higher education, only 21 percent of the women but 79 percent of the men are tenured. And even the women with tenure find themselves underrepresented in the higher academic ranks. Three-fourths of the men, but only half of the women with extensive experience hold the rank of full professor. It should not be a surprise, therefore, to learn that two-thirds of these experienced male faculty, but fewer than half (46 percent) of these experienced female faculty, report earned annual incomes of $55,000 or more.

This international survey makes a distinction between faculty of "research universities" and those of other colleges and universities in the same country. Research universities not only tend to place greater emphasis on research than other institutions, but also tend to have larger faculties and more diverse curricula. The faculty at American research universities, when compared to those at other institutions, are older, more experienced, and are more often male.

THE WORK OF U.S. ACADEMICS

Faculty at baccalaureate-granting institutions of higher education in the United States devote twenty-two hours per week to teaching when classes are in session. This represents almost 42 percent of their total weekly professional work during the academic year. Another 27 percent of their time is given to research. It may come as a surprise to learn that these academics estimate that they give about seven hours per week, 13 percent of total professional work time, to "administration," which the questionnaire describes as "committees, department meetings, paperwork." "Service" activities ("services to clients and/or patients, paid or unpaid consulting, public or voluntary service") make up another 12 percent of total professional work. On average, academics with full-time contracts work at their profession almost fifty-three hours per week when classes are in session.

FACULTY SATISFACTION WITH CAREERS

Faculty were asked questions about the broader context in which they live and work, their perspectives on the state of higher education generally and of the academic profession in particular. It is clear that American academics are discouraged about the general state of their enterprise and believe that their profession has been devalued by society at large. Almost nine out of ten faculty agree that the effectiveness of higher education is being threatened by growing bureaucracies. Even though their institutions are generally larger, faculty at research universities are a bit less pessimistic than are their counterparts at other institutions about the perceived growing bureaucratic trend. In only four other countries—Australia, Mexico, the Netherlands, and England—do academics feel more threatened by what they see as encroaching bureaucracies.

More than three-fourths of all academics agree that institutions of higher education are increasingly subject to interference from special interest groups; faculty in Brazil and Mexico express the highest levels of pessimism on this point. Academics seem to sense a decline in institutional autonomy as contrasted with their own professional autonomy. If the typical university ever did conduct its affairs in splendid isolation, that certainly is not the situation now, according to these faculty respondents. External forces such as bureaucracies and special interest groups are seen as having a negative impact on the functioning of colleges and universities in America. But do faculty feel they can counter these trends? The data suggest not. Academics think they are relatively powerless or, at least, they do not perceive themselves to be powerful players in influencing major societal decisions. More than seven in ten reject the assertion that academics are among the most influential opinion leaders in the country. Public respect for the profession is also seen as slipping. Eighty-three percent agree that respect for academics in the United States is declining. That discouraging view is uniformly held across all kinds of colleges and universities. Colleagues in Brazil, Korea, and England share this view, although academics in all the other countries are less prone to see a decline in public respect for academics in their countries.

While they have a dismal view of certain conditions within higher education and of the public's appreciation of the academic profession, for the most part U.S. academics are relatively satisfied with their current positions and enthusiastic about their core professional activities. More than three in four say they are satisfied with their job situation as a whole. Further, almost nine in ten express satisfaction with the opportunities they have to pursue their own ideas.

There are several other points of great satisfaction. More than eight in ten see their relationships with colleagues as satisfactory. Seventy-nine percent of all faculty express satisfaction regarding their job security, even though only 61 percent of respondents were tenured. Seventy-two percent give a positive assessment of their own institution's retirement arrangements.

But there is also widespread dissatisfaction among American academics. The list of concerns is long and varied. Concerning academic salaries, more than half rate their own salary as fair or poor; only 9 percent describe their salary as excellent; more than eight in ten are pessimistic about their prospects for improved salaries in the next five years; and women are less positive about both current and future salaries. Almost two in three respondents describe faculty morale as fair or poor. More than six in ten rate the sense of community at their institution similarly. Regarding funding for professional development, more than half are less than satisfied with the availability of paid sabbatical leaves. Only one in four rates travel funds for academics as good or excellent. Women, in particular, are unhappy about the level of funding for professional development. Only four in ten see faculty–administration relations as good or excellent. Almost six in ten faculty describe support for research, in the form of equipment and instruments, as poor or fair. The majority do not give their institution's laboratories and teaching technologies positive ratings. Only 44 percent of faculty judge the level of secretarial support to be at least good. Only 37 percent of faculty express satisfaction with the way in which their institution is managed. And finally, fewer than half, 48 percent, are satisfied with what they see as their prospects for promotion (excluding those who are already tenured and hold the rank of full professor).

This long and somewhat surprising litany of sources of dissatisfaction among academics seems to reveal more than just low-level "grumbling." Concerns about salaries and financial support for needed equipment and services are expressed unambiguously by sizable majorities. And there is no denying faculty unease regarding morale, sense of community, and relationship with administrators.

How can these professionals, specifically 78 percent of the respondents, be satisfied with their job situation as a whole while at the same time expressing dissatisfaction with so many elements of the setting in which they practice their profession? First, for some faculty the points of significant dissatisfaction may be offset in whole or in part by conditions that are deemed to be quite satisfactory. For example, dissatisfaction with salary and the prospects for salary increases in the next few years may be offset by satisfaction with the institution's fringe benefits, so that, taken together, the institution's financial support is at least acceptable. The responses indicate a number of points of satisfaction that may serve to counterbalance some of the dissatisfaction noted above.

Some 62 percent of all faculty give their institution's intellectual environment an excellent or good rating. Almost six in ten respondents view their classrooms as at least good. A solid majority of 61 percent assesses the computer facilities available to them as excellent or good. Fifty-four percent of faculty are pleased with their offices. Half of all faculty give positive ratings to the library holdings needed to support their work. More than half describe benefits such as health insurance, life insurance, housing, and support for education as excellent or at least good.

Second, some elements of the occupational setting may be more central for the individual academic. Note the items showing very widespread satisfaction: 96 percent are satisfied with the courses they teach; almost nine in ten are satisfied with the opportunities they have to pursue their own ideas; more than eight in ten feel good about their relationships with colleagues; and almost as many express satisfaction regarding their job security. It can be argued that core satisfaction may center on "professional autonomy," or a high degree of control over the main activities of an academic—teaching and research. Job security and collegial relationships are close secondary contributors to core satisfaction. The importance of retirement arrangements is not far behind. These data suggest that if an academic feels professionally autonomous, secure in his or her job, and respected by campus colleagues, he or she is likely to give a positive rating to the job situation as a whole, even if some, perhaps quite a few, other less salient aspects of the job setting are seen as unsatisfactory.

The perspectives of faculty at research universities differ in many ways from those of their colleagues elsewhere. In general, when they differ, the outlook of faculty at the former is more positive and enthusiastic. Research faculty are more satisfied with the opportunities to pursue their own ideas and are more likely to see this as an especially creative and productive time in their disciplines. They give more positive ratings to: their salaries; prospects for improvement in their salaries; the intellectual atmosphere on campus; the availability of technology for teaching; the adequacy of laboratories, research equipment and instruments, computer facilities, and library holdings; and the quality of students enrolled in the department. Also, academics at research universities are more likely to give positive assessments to benefits such as paid sabbatical leaves, the institution's retirement arrangements, and other fringe benefits.

Research universities in the United States are categorically very large organizations with much program diversity. The size and complexity may help explain some of the few instances in which their faculty are less positive than other academics. Research faculty give slightly lower ratings to the sense of community on campus and to the clarity of the institutional mission. Feelings of closeness, of sharing goals, values, and norms tend to decline as organizations become larger. When one knows by name only a small fraction of those who frequent the campus, it is difficult to retain a sense of community. Anonymity takes precedence over community at these institutions, which are typically composed of several dozen schools, colleges, institutes, centers, and programs—to say nothing of fifty or more academic departments. It is little wonder that so diverse an academic population reports a lack of clarity of institutional mission.

STUDENTS, CLASSES, AND TEACHING STYLES

Faculty give overwhelmingly negative ratings to undergraduate students. Teaching-oriented and research-oriented academics have nearly identical views regarding the undergraduate students at their colleges and universities. Three-quarters of the faculty say that their undergraduate students are inadequately prepared in written and oral communication skills; eight in ten say students are inadequately prepared in mathematics and quantitative reasoning skills. In addition, faculty are highly critical of undergraduate students' motivation and commitment to achievement in college. Sixty percent agree that students do just enough to get by academically. One-third of U.S. academics believe that these students are willing to cheat to get good grades. Most do not see current students as particularly studious. More than three in four do not think that students are more studious than their counterparts of five years ago.

While undergraduates in general get less than sterling marks from their professors, the picture is quite different when the focus is on students within the department (table 9.2). More than six in ten of the faculty surveyed rate their department's students as good or excellent. That average tends to hide some interesting variation, however. Faculty of research universities give much more favorable ratings than do the others, with 74 percent versus 56 percent saying their students are good or excellent. Whether students at research universities really are superior in some objective sense cannot be determined from these data, but their professors clearly think that is the case. The finding that professors at research universities give higher ratings may flow in part from the unique configuration of students enrolled in their departments.

Academics whose interests lie more in research than in teaching give more favorable student ratings, with 64 percent versus 59 percent evaluating their department's students as good or excellent. This finding holds across all types of institutions, not just in research universities. And many of these academics have no graduate students in their departments.

Instructional Activity Within and Outside the Classroom

Academics estimate that they spend a total of thirteen hours per week in face-to-face instructional activity. That includes time in classroom and laboratory instruction and what is termed "individualized" instruction

Table 9.2

FACULTY ASSESSMENT OF STUDENT QUALITY WITHIN THE DEPARTMENT

	PERCENTAGE RATING STUDENTS "GOOD" OR "EXCELLENT"
All faculty	61
Research-oriented faculty	64
Teaching-oriented faculty	59
Research university faculty	74
Research-oriented faculty	71
Teaching-oriented faculty	79
Faculty within other institutions	56
Research-oriented faculty	58
Teaching-oriented faculty	55

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

(tables 9.3 and 9.4). As might be anticipated, faculty at research universities spend less time—18 percent less, on average—in direct instructional activity than do their colleagues elsewhere. And their total time devoted to teaching and instruction-related work combined is 30 percent less than the time reported by faculty at other colleges and universities. Faculty who are actively pursuing research and especially those who have funded research projects are often given "released time" from teaching in recognition of the time demands of research. That widely followed policy could explain why academics at research universities and research-oriented faculty in general devote significantly less time to instructional activity.

Women faculty do not differ from men in time devoted to instruction when classes are in session. During a typical week, however, they do spend considerably more time, 17 percent more, in all teaching

Table 9.3

HOURS DEVOTED EACH WEEK TO TEACHING, BY INSTRUCTIONAL METHOD (MEAN NUMBERS)

	INSTRUCTIONAL METHOD		
	CLASSROOM/ LABORATORY	INDIVIDUALIZED	TOTAL
All full-time faculty	9.3	5.7	13.4
Faculty at research universities	6.5	6.4	11.6
Faculty at other institutions	10.3	5.4	14.2
Female faculty, all institutions	9.4	5.8	13.5
Male faculty, all institutions	9.2	5.7	13.4
FACULTY, BY DISCIPLINE			
Physical and biological sciences, mathematics, and engineering	9.3	5.6	13.8
Humanities	10.1	5.2	13.9
Social sciences and psychology	8.9	4.6	12.4
Health sciences and related fields	7.5	7.4	12.8
All other disciplines	9.8	5.6	13.8

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

Note: Excluded are faculty doing no teaching during that academic year. Figures represent estimated mean hours per week.

and teaching-related activities combined. Specifically, female faculty give more time to such things as preparation, advising students, and reading and evaluating student work. We shall see later how this greater time commitment of women to teaching compares to their commitment of time to research, when contrasted to that of men faculty.

When it comes to instructional effort overall, faculty members in the

Table 9.4

HOURS DEVOTED EACH WEEK TO TEACHING (MEAN NUMBERS)

	CLASSES IN SESSION
All full-time faculty	22.0
Faculty at research universities	16.8
Faculty at other institutions	24.1
Female faculty, all institutions	24.5
Male faculty, all institutions	21.0
FACULTY, BY DISCIPLINE	
Physical and biological sciences, mathematics, and engineering	22.9
Humanities	25.7
Social sciences and psychology	22.3
Health sciences and related fields	14.5
All other disciplines	24.0

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

Note: Hours include preparation, classroom instruction, advising students, reading and evaluating student work.

humanities are the workhorses of the campus. In terms of direct student instruction, they teach one and a half hours a week more on average than their counterparts in the social sciences and psychology. That represents a 12 percent heavier teaching assignment. As for total time given to teaching and all teaching-related work, the contrast is even sharper. Humanities faculty devote 77 percent more time to this function than those in the health sciences and related fields, the category with the smallest time expenditure. The 26 mean hours per week contributed by humanities faculty are 16 percent above the mean for all academics combined.

Teaching Styles

On average, about 60 percent of class time in introductory undergraduate courses is devoted to lectures, according to estimates provided by faculty who teach courses at that level. Research-oriented faculty teaching these courses lean more heavily toward lecturing than do teaching-oriented academics—64 percent and 59 percent respectively. Class discussion and laboratory work take roughly equal proportions of the remaining class time.

Teaching style is also revealed in the requirements imposed by professors—hurdles that students must clear to successfully complete a course (table 9.5). Generally, it can be said that U.S. academics insist on regular class attendance and active student participation in class discussions for all three levels of courses—undergraduate, graduate, and professional. In addition, for undergraduate courses of any kind, students must take two or more examinations. The requirement of a single examination is the least prevalent of the seven possible requirements listed in the questionnaire.

Of faculty who teach graduate and professional courses, just over half require their graduate or professional students to produce a major paper. Only slightly more insist that every student enrolled in such advanced courses make a formal oral presentation in order to complete the course. The requirement of class attendance is as widespread for graduate courses as it is for most undergraduate courses—detracting from the concept that students in graduate or professional courses are perceived to be independent-minded and self-directed in their educational pursuits. Teaching-oriented academics are significantly more likely to require attendance in graduate or professional courses than are the research-oriented.

More than four in ten faculty require undergraduate students in courses beyond the introductory level to produce a major paper. And more than two-thirds of faculty require those students to participate actively in class discussions. In general it may be said that teaching-oriented academics are more demanding regarding class participation. At all levels a significantly higher proportion of them require that students participate actively in class discussion, and they are more insistent that each student make a formal presentation in class.

Table 9.5

TYPICAL REQUIREMENTS FOR COURSE COMPLETION, BY LEVEL OF COURSE (PERCENTAGES)

	INTRODUCTORY UNDERGRADUATE	OTHER UNDERGRADUATE	GRADUATE OR PROFESSIONAL
Attend class regularly	75	68	65
Write several short papers	44	51	40
Write a major paper	19	42	56
Make a formal oral presentation	17	41	56
Participate actively in class discussion	56	69	71
Take a single exam	6	9	19
Take two or more examinations	84	79	51

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

As for international comparisons, U.S. academics, along with Brazil, Germany, and Mexico, have a higher percentage of faculty who require regular class attendance and active participation in class discussions for courses beyond the introductory level and for graduate or professional courses.

THE RESEARCH CADRE

Producing new knowledge and applying knowledge in new and beneficial ways are usually said to be among the necessary contributions of higher education to society. In this section we will focus on the activities, working conditions, and perspectives of those academics who specialize in research. We identify the research cadre as those full-time faculty who are more interested in research than in teaching and whose position requires them to conduct research regularly. Because we want to look at productivity in publishing, we include only faculty who have been at their current institution for six or more years and who are not working toward an advanced degree.

There are several reasons why these research specialists are of particular interest. First, what they produce is generally more visible to the public and to powerful interest groups than is the output of those who specialize in teaching. Their publications and other creative scholarly contributions can be readily noted and possibly evaluated by outsiders. This visibility makes them perhaps newsworthy and, on rare occasion, exceptionally praiseworthy, as with contributions for which Nobel and Pulitzer prizes are awarded. Secondly, the products flowing from research and comparable creative scholarship in the arts provide a basis for leadership in the academic profession in general, and especially within the specific disciplines, for those whose work is deemed to be on the cutting edge of a field of knowledge.

Other academics, whether teaching or research specialists, tend to incorporate into their own scholarly efforts the output of the stars of the research cadre—for example, in the latest textbooks and in teaching graduate and professional level courses. In this and other ways, the researchers lead and influence the evolution of knowledge. Finally, the research cadre is significant because any academics likely to have an impact on public policy will almost certainly be from that small number of researchers whose works have received wide attention (although their testimony before congressional and state legislative committees is often political window dressing).

The research cadre as defined here makes up 19 percent of all academics. In research universities its members comprise 37 percent while in other institutions they make up 12 percent of the faculty (table 9.6).

Activities

The research cadre is doing what it is supposed to do—conducting research. More than 99 percent are currently engaged in one or more research projects. More than eight in ten have received grants or other funding support for research sometime during the previous three years. Proportionally more of that financing has gone to those in research universities.

Faculty in the research cadre are uniformly required to do research, and for 84 percent, their work is regularly evaluated. Evaluation of research is conducted with similar frequency regardless of the type of institution at which the scholar is working. Those with research grants are no more subject to regular evaluation than anyone else.

Research evaluation is usually carried out by the head of the department. Only rarely are members of other research departments within the institution involved in regular evaluation of the efforts of the research cadre. Peers within the department and external reviewers are widely used at research universities but used less frequently in other settings. At research universities the evaluations are less likely to be done by senior administrative staff. Most academics have their research evaluated regularly by more than one assessor—usually by two or three different assessors. Even those with grant support for their research have several reviewers—internal as well as external—examining their research on a regular basis.

Table 9.6

SELECTED CHARACTERISTICS OF RESEARCH CADRE, BY TYPE OF INSTITUTION (PERCENTAGES)

	RESEARCH UNIVERSITY FACULTY	FACULTY IN OTHER UNIVERSITIES	TOTAL RESEARCH CADRE
Hold Ph.D. degree	84	87	86
Teach only graduate students	32	18	26
Teach only undergraduate students	2	15	8
Have tenured position	85	92	88
Hold full professor rank	62	56	59

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

Among academics, perhaps the most repeatedly voiced reason for not doing more research is lack of time resulting from heavy teaching responsibilities. Do research specialists actually have lighter teaching loads, or do they give less time overall to teaching and teaching-related activities than other similarly situated faculty? The time estimates provided by the academics in our survey indicate that faculty in the research cadre do indeed devote appreciably less time to instruction and teaching-related activity, seventeen versus twenty-eight hours per week, on average—compared to teaching specialists, whom we shall call the "teaching cadre" (table 9.7).

While research specialists teach less, they give very large blocks of time to research activity, more than three times the hours per week given to research by teaching specialists. Expressed in another way, the research faculty give eleven fewer hours to teaching but devote sixteen more hours weekly to conducting research than do their counterparts who specialize in teaching. There is little difference between the research and teaching cadres, however, in the amount of time devoted to all other professional work. So, when the estimated hours are totaled, the research cadre spends 9 percent more hours per week in all professional activities than the teaching cadre.

Would reducing teaching obligations significantly increase the time academics give to research? These data do not provide an unambiguous answer to that question. The findings do show, however, that academics who are already research specialists devote large blocks of time to that endeavor and, in addition, work longer hours overall in connection with their professional activities.

Finally, we take a look at faculty who have had financial support for their research and other creative work at any time during the previous three years. We call the recipients of such financial support "grantholders." Fifty-six percent of all full-time U.S. academics are grantholders. That proportion is higher (74 percent) among research university faculty in general and highest of all among the research cadre within those universities (84 percent).

Grantholders, whether employed at a research university or elsewhere,

Table 9.7

PROFILES OF THE RESEARCH CADRE AND THE TEACHING CADRE (PERCENTAGES)

	RESEARCH CADRE	TEACHING CADRE
Female faculty	21	27
Male faculty	79	74
Annual earned income, $55,000 or more	63	50
(Mean age, all faculty)	(49)	(53)
FACULTY, BY DISCIPLINE		
Physical and biological sciences, mathematics, and engineering	30	22
Humanities	17	19
Social sciences and psychology	14	11
Health sciences and related fields	22	11
All other disciplines	17	37

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

Note: Teaching cadre includes full-time faculty who have been employed at their institution for at least six years. They report being more interested in teaching than in research. Regular research activity is not required by the position they hold. None of them were working toward an advanced degree at the time of the survey.

give significantly less time to teaching and teaching-related activities (tables 9.8 and 9.9). And as might be anticipated, grantholders devote much more time to research than other similarly situated faculty. These research specialists also stand out in the centrality of their interest in research, with 11 percent versus 2 percent saying they are "primarily interested in research." More of them also teach only graduate or professional students (25 percent, as opposed to 14 percent for faculty

Table 9.8

TIME SPENT BY RESEARCH CADRE ON TEACHING, RESEARCH, AND OTHER PROFESSIONAL ACTIVITY (MEAN HOURS PER WEEK WHEN CLASSES ARE IN SESSION)

	TEACHING	RESEARCH	ALL OTHER PROFESSIONAL ACTIVITIES[a]	TOTAL HOURS PER WEEK
All faculty	17	22	16	55
Research university faculty	15	23	17	55
Faculty at other institutions	19	20	14	53
FACULTY WITH RESEARCH GRANTS				
All faculty	16	23	16	55
Research university grantholders	15	24	18	57
All other grantholders	17	22	14	53
FACULTY WITHOUT RESEARCH GRANTS				
All faculty	22	17	15	54
Research university faculty	17	20	16	53
Faculty at other institutions	25	15	14	54

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

[a] All other professional activities include service, administration, and other academic activities such as attending conferences.

Table 9.9

TIME SPENT BY TEACHING CADRE ON TEACHING, RESEARCH, AND OTHER PROFESSIONAL ACTIVITY (MEAN HOURS PER WEEK WHEN CLASSES ARE IN SESSION)

	TEACHING	RESEARCH	ALL OTHER PROFESSIONAL ACTIVITIES[a]	TOTAL HOURS PER WEEK
All faculty	28	6	17	51
Research university faculty	18	5	27	50
Faculty at other institutions	29	6	16	51
FACULTY WITH RESEARCH GRANTS				
All faculty	24	7	19	50
Research university grantholders	14	7	35	56
All other grantholders	25	7	18	50
FACULTY WITHOUT RESEARCH GRANTS				
All faculty	30	5	16	51
Research university faculty	19	4	27	50
Faculty at other institutions	31	6	16	53

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

[a] All other professional activities include service, administration, and other academic activities such as attending conferences.

having no financial grants). We move next to the most obvious product of research, scholarly publications. While faculty research activity undoubtedly enriches the teaching of those carrying it out, that enrichment is scarcely noticeable when compared to the visibility of publications.

PUBLICATIONS

It is often said that universities, especially doctorate-granting institutions, place equal emphasis on faculty teaching and research, while other institutions of higher education focus primarily on teaching. We have seen in the data presented above that a research emphasis cuts across the full range of institutions in the United States. Since research activity usually leads to publication of one type or another, it is not surprising to learn that publications have come to serve as the measure of scholarly productivity in research universities and to a large extent in the other institutions of higher education also.

Publications are the coin of the realm in academe. Three-quarters of all faculty say that in their departments it is difficult to achieve tenure without producing publications. As might be expected, in research universities that requirement is almost universal. At other colleges and universities, 67 percent cite publication as a key element for tenure. The figures are similar for responses to the statement, "In my academic position at this institution, regular research activity is expected." Even at non-research-intensive institutions more than half say regular research activity is expected. Given these normative requirements one should anticipate a deluge of publications from faculty of research universities and a somewhat smaller steady stream from the academics located elsewhere.

Articles

The typical academic published five articles in an academic journal or book in the previous three years (table 9.10). If that number seems large, it should be remembered that this may include some "double counting."

Table 9.10

PUBLICATION OF ARTICLES AND BOOKS (MEAN NUMBER PUBLISHED, LAST THREE YEARS)

	RESEARCH UNIVERSITY FACULTY		FACULTY AT OTHER INSTITUTIONS		ALL FACULTY	
	ARTICLES	BOOKS	ARTICLES	BOOKS	ARTICLES	BOOKS
All full-time faculty	8.07	0.65	3.64	1.24	5.06	1.06
Female faculty	5.85	0.40	2.23	0.21	3.24	0.26
Male faculty	8.72	0.71	4.15	1.52	5.69	1.33
FACULTY, BY DISCIPLINE						
Physical and biological sciences, mathematics, and engineering	10.21	0.21	4.22	0.15	6.32	0.17
Humanities	4.02	1.02	4.49	3.75	4.36	3.06
Social sciences and psychology	5.42	0.61	3.25	0.45	3.81	0.49
Health sciences and related disciplines	9.68	0.37	4.28	0.15	7.16	0.26
All other fields	6.63	0.67	2.51	1.12	3.33	1.04

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

It is not unusual for a journal article to reappear one or more times as part of a collection in a book of readings. Less frequent is the practice of revising a journal article, which is then published as a chapter in an edited book of readings. Each reappearance is typically listed as a separate publication. Faculty in research universities are the big producers, averaging eight articles in contrast to four for other faculty. The most prolific authors, of course, are the research cadre grantholders working in research universities. (The proportion of nonresponses to this item was unusually large. It is possible that if most of the nonrespondents had answered the questions, their response would have been zero. It may be, therefore, that the figures shown here overestimate what, in fact, has been produced by faculty.)

Male academics outpublish female academics for both articles and books. The output of articles and books varies according to discipline. Overwhelmingly, research findings and commentary by health sciences academics are communicated through articles rather than through book authorship. A similar pattern is evident for faculty in the biological and physical sciences, mathematics, and engineering. A number of factors are associated with high production of published articles: fewer teaching hours, teaching only graduate students, and having a primary interest in research.

Books Authored

Writing a book and getting it published is a major venture—one that goes well beyond the effort generally required for the publication of a few articles. While 40 percent of faculty wrote no books in the previous three years, of those who did, the typical output was one book. Oddly, research university faculty have not outproduced academics elsewhere, and being a grantholder does not increase the likelihood of writing and publishing a book. Those without grants wrote just as many books.

There are a number of factors that correlate with producing more books: teaching more than ten hours per week, teaching at least some undergraduate courses, or not being interested "primarily in research."

Books Edited

Being editor of an academic book requires considerably less effort than authoring a book. Almost one in four faculty have edited at least one book over the previous three years. It should be noted that, as with the publication of articles, the figures reported on the number of books edited may be an overestimation—given that many faculty who did not respond to this question may have published zero books. That number is only slightly higher than the number who have authored books. Faculty at research universities are no match for those at other types of universities and colleges when it comes to editing books. As with book authorship, it is those who only lean toward research, rather than those interested primarily in research, who more frequently publish edited books. The number of hours per week of teaching and whether or not the academic teaches only graduate and professional students is unrelated to number of edited books published.

Research Reports and Monographs

Research reports and monographs are usually required by the research funding agency and are occasionally published formally. However, more often they are produced in limited quantity and distributed informally. It is surprising that faculty of research universities do not stand out as more prolific in the writing of research monographs. A higher proportion of them have had research grants over the previous three years—70 percent versus 45 percent for other faculty. They are also more prolific in publishing articles, many of which are presumed to flow from their funded research, but they do not produce research monographs in greater volume than their counterparts elsewhere. For U.S. academics as a whole, 50 percent have written one or more research monographs over the previous three years—although as with books and articles, this figure may be an overestimation of actual output.

It is difficult to avoid the conclusion that at the very core of academe in the United States is the perceived unending need for faculty to publish. Those who do the most publishing do the least teaching. But if the content of what is published is truly unique—new knowledge and improved integration of prior knowledge—then the near universal drive of academics to author scholarly articles and books will benefit each new generation of students.

Perceived Quality of Training for Professional Roles

Almost without exception U.S. academics have spent several years taking graduate-level courses in their chosen discipline. In most disciplines, graduate training includes a strong emphasis on learning the appropriate methods to be utilized in the search for new knowledge. Numerous courses focus on research methodology, and many of the courses are required. In addition, some graduate students, perhaps one in five, get experience working with a professor as a research assistant. Significant graduate school resources are expended with the aim of giving every degree candidate the training necessary to conduct competent research in the years after graduation.

But U.S. graduate programs offer almost no courses designed to prepare incoming professionals for teaching at the college level, the activity that will consume the largest block of their time if they practice in academic posts. Some graduate students, probably fewer than 5 percent, have the opportunity to serve as a teaching assistant, but that position rarely includes any planned coaching or tutoring provided by an experienced instructor at the college level. In addition to monitoring student behavior during examinations and grading exam papers, the typical teaching assistant meets with students in a class setting to answer questions about examinations and to provide instruction that supplements the efforts of the professor who may lecture once or twice a week to several hundred students assembled in large lecture halls. The work of the teaching assistant in the classroom is almost never observed or evaluated by a master teacher or any other academic.

The graduate programs in U.S. universities are designed to produce individuals who are very knowledgeable in their specialties and who are competent researchers. The ability of graduates as teachers is ignored as though it were irrelevant, when in fact it is central to the profession. In this survey, respondents were asked to assess the quality of their training for the roles of college teacher and academic researcher. In retrospect, they rate their training for research quite favorably. More than three-fourths see it as excellent or good. Training for teaching is not as roundly praised, with some 63 percent using "excellent" or "good" to describe their own training.

Compared to other academics, research university faculty are much more critical of their training for teaching than of their training for research. The same pattern holds for research-oriented academics, regardless of the type of institution in which they work. Academics interested more in research than in teaching believe their research training was clearly superior to their preparation for teaching. Age is closely associated with favorable assessment of training for teaching quite apart from the type of employing institution. The older the academic, the more favorable the rating given to training for college teaching. Interestingly, age is not associated at all with rating of preparation for academic research.

Among academics at research universities, both the teaching-oriented and research-oriented are more critical of their teaching training than of their research training. Holding a Ph.D. degree makes an academic much more likely to give a superlative rating to his or her research training but is unrelated to teaching preparation ratings. Those with a current research project are extremely pleased with their research training but only moderately satisfied with their training for teaching. Those without such projects see no difference in quality between the two kinds of training. Tenure status is not related to variation in assessment of quality of teaching or research training. Women and men faculty both give mediocre ratings to their preparation for college teaching. However, in rating the quality of research training, men tend to give significantly higher ratings than do women academics.

Among faculty at other colleges and universities, only the research-oriented see a sharp difference in the quality of the training they received. In their view, the research preparation was outstanding, while training for teaching was only acceptable at best. By contrast, however, seven in ten of the teaching-oriented give excellent or good ratings to both types of preparation. The holders of Ph.D. degrees give dramatically different responses than do those having other degrees. The former rate the quality of their research training much higher than that for teaching; responses from those with other degrees show just the reverse, teacher training being rated much more highly. If an academic has a current research project, research preparation gets a much higher rating, but without a project, training for teaching gets the more favorable rating. Again, tenure status is unrelated to ratings of quality. Female academics at these colleges and universities give lower ratings to both kinds of preparation than do their male colleagues.

While the data analyzed here represent subjective evaluations, they do reflect the direct personal experiences of the responding faculty members. Further, the assessments provided in response to the questionnaire items have current experiential points of reference. Practically all of the responding faculty are now teaching and, therefore, have an ongoing basis for judging the kinds of skills and other qualities needed to do a professional job of teaching college students. Also, the vast majority of these academics report that they are currently engaged in some type of research activity. Thus, they would seem to have frequent occasion to sense how well prepared they now are to carry out their research enterprises successfully. For these professionals, questions concerning their training for academic research and college teaching clearly are not hypothetical ones.

If we assume that the ratings provided by these academics reflect the actual quality of training received by U.S. academics, a number of generalizations would appear to hold. Training for academic research is clearly of higher quality than the preparation for college teaching. Research-oriented faculty receive excellent preparation for their favorite endeavor but only modest training for the teaching that most of them do every week. Teaching-oriented faculty receive more than satisfactory training for both teaching and research. The level of research training has been consistently high over the last several decades. The quality of preparation for college teaching has shown a consistent decline over the same time span. Faculty at research universities have received better research training than their counterparts elsewhere, and academics at other institutions have experienced better training for teaching than have those in research universities. Compared to men academics, women have received inferior training in both teaching and research. Those who have earned a Ph.D. have markedly better preparation for research; those with other degrees have slightly better training for teaching.

MOBILITY AMONG THE PROFESSORIATE

In this survey, faculty were asked about the likelihood that they would leave their institutions during the next five years. Their answers should be interpreted in context. For more than a decade prior to this survey, movement of faculty among institutions was quite limited, in contrast to the situation in earlier years. The long-term trend of continuing increases in student enrollment tapered off and then declined somewhat. In turn, the number of new faculty positions reflected that trend a few years later. Thus, the majority of academics in the survey had likely grown accustomed to the idea that the number of potential openings at other institutions would continue to be quite limited. Desiring a position elsewhere and having a realistic chance of getting one are likely to be very different in the eyes of these respondents.

Despite what must seem like poor prospects for potential mobility, some 49 percent of the faculty as a whole said that it was likely or very likely that they would leave their current academic position within the next five years. It should be noted, however, that the 49 percent figure is almost certainly inflated by the responses of those academics who anticipate retiring within the next five years. (Numerous respondents wrote comments in the margin of the questionnaire indicating that they were planning to leave because they were retiring.)

To avoid possible distortion in interpreting the data on intended departure, we identified academics who truly are potentially mobile in the sense of anticipating a move to a different position at another institution. The potentially mobile are full-time faculty under fifty-five years of age whose earned income flows exclusively (90 percent or more) from the institutional position they held at the time they answered the questionnaire. By analyzing their responses we hope to gain some insight into the factors propelling the departure of faculty from their current campuses, as well as some indication of the ties that bind those who might otherwise consider leaving.

Almost four in ten of the potentially mobile faculty say they are likely to leave their current institution within the next five years, suggesting that there will have to be a lot of recruiting activity to replace those who are leaving. The most typical departing academic is a research-oriented woman who is a nontenured assistant professor at a research university. These data indicate that research universities as a whole are facing significantly higher turnover than other colleges and universities (tables 9.11 and 9.12).

In examining these data, we begin with the assumption that some factors or conditions have the potency to push many potentially mobile faculty away while other factors operate to hold them where they are currently employed. Of course, there is going to be individual variation in how one responds to a particular condition, but broad trends are likely to show up when reviewing the data for large numbers of academics.

The data make it quite clear that academics who are dissatisfied with certain aspects of their job and conditions of work are indeed likely to anticipate departing in the near future. That link is especially strong for academics at research universities, where about three in four of those dissatisfied with their existing opportunities to pursue their own ideas or with their job situation as a whole anticipate that they will likely be gone within five years. Across all types of institutions, dissatisfaction with job security is a potent factor. Almost two out of three of the dissatisfied anticipate leaving their current employment in the near future.

Perhaps academics at research universities, as contrasted to others, are more likely to see job opportunities elsewhere and, therefore, are less willing to live with dissatisfactions related to their current positions. With only one exception—concern about job security—faculty at research universities are significantly more likely to cope with dissatisfactions growing from work conditions by planning to leave than is the case for their colleagues in other institutions. Or perhaps their self-image as professionals includes a lower level of tolerance for conditions they find constraining or an affront to their dignity. In any event, they are clearly less likely when dissatisfied to tolerate it.

Table 9.11

FACULTY WHO ARE "LIKELY" OR "VERY LIKELY" TO LEAVE THEIR INSTITUTIONS WITHIN FIVE YEARS (PERCENTAGES)

All "potentially mobile" faculty	39
Now at research universities	45
Now at other colleges and universities	37
Tenured faculty	27
Nontenured faculty	65
Female faculty	41
Male faculty	37
Teaching-oriented faculty[a]	33
Research-oriented faculty[b]	47
Professor rank	22
Associate professor rank	35
Assistant professor rank	58

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

Note: This includes only faculty under age fifty-five.

[a] This includes those interested in both teaching and research but leaning toward teaching, as well as those "primarily" interested in teaching.

[b] This includes those interested in both research and teaching but leaning toward research, as well as those "primarily" interested in research.

In designing the questionnaire, an additional approach was included in an effort to understand why faculty leave or stay. Faculty were asked to respond to five elements or working conditions, including the following: income, resources for research, academic reputation of the institution or department, academic cooperation among colleagues, and region in which the institution is located. For each condition the respondent indicated on a five-point scale the extent to which it was viewed as a reason to leave versus a reason to stay. No attempt was made

Table 9.12

SOURCES OF DISSATISFACTION AMONG FACULTY "LIKELY" OR "VERY LIKELY" TO LEAVE THEIR INSTITUTIONS WITHIN FIVE YEARS (PERCENTAGES)

	RESEARCH UNIVERSITY FACULTY	FACULTY AT OTHER INSTITUTIONS	ALL FACULTY
Prospects for promotion	59	48	51
Relationships with colleagues	60	44	49
Courses taught	53	44	47
Job security	65	64	64
Opportunity to pursue own ideas	73	48	53
Way institution is managed	65	39	42
Job situation as a whole	75	59	64

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

to have respondents rank the importance or strength of one reason as compared with the others. Their responses, however, may provide a rough indication of the extent to which each reason is viewed by these academics as a push away from or a pull toward staying. It should be remembered that for any individual there may be a counterbalance between elements such as income as a reason to leave and collegial cooperation as a reason to stay (table 9.13).

For U.S. academics as a whole, financial considerations—income and resources for research—are the most powerful factors pushing the potentially mobile away from their current institutions. Given the tightening of college and university budgets over the last decade or so, this finding should not be surprising. The view that income at the current institution is inadequate is identical across institution types.

Departing faculty from institutions other than research universities have a somewhat unique perspective, however. They see inadequate resources for research and the low academic reputation of the institution

Table 9.13

REASONS FOR LEAVING NAMED BY FACULTY WHO EXPECT TO LEAVE THEIR INSTITUTIONS WITHIN FIVE YEARS (PERCENTAGES)

	RESEARCH UNIVERSITY FACULTY	FACULTY AT OTHER INSTITUTIONS	ALL FACULTY
Income	77	78	78
Resources for research	64	83	77
Academic reputation of the institution or department	46	83	71
Cooperation of colleagues	62	62	62
Regional location of current employing institution	63	51	55

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

or department as being even more potent push factors than inadequate income alone. It is possible the strong responses to these two factors—83 percent naming each factor as a reason to leave—are correlated. As noted elsewhere in this chapter, a majority of academics across the country appear to accept the concept that faculty research and publication are highly desirable, if not absolutely necessary. And it is the visibility of publications that makes academic reputations. Absence of faculty publications is generally assumed to indicate a lower level of academic quality for a department or an institution as a whole. Thus, academics from these other institutions who say they may leave seem to be saying that they intend to do so principally because the resources for research provided by the institution are inadequate and that this inadequacy is reflected in an unacceptably low academic reputation of the department and/or the institution. They apparently believe that they can find a position elsewhere offering more adequate resources for research, thereby making an enhanced academic reputation possible through research and publication. Furthermore, if the new department already has a better academic reputation than the current one, the individual academic is likely to believe that funding for research will be easier to obtain at the new location. In contrast, only a minority of the departing faculty at research universities name academic reputation as a push factor. They see it as the least potent of the five named circumstances. While their concern about inadequate resources for research is quite substantial, with 64 percent saying this condition is a push factor, faculty at other colleges and universities see it as extremely powerful.

Here, then, is further evidence that the university research model has widespread acceptance among academics across the board. The drive to conduct research from which publications will flow, leading to enhanced academic reputation, is an underlying force of considerable significance. That drive is not likely to lessen anytime soon.

Internationalism: Attitudes and Activities

There seems to be a broad-based consensus among U.S. academics that higher education should not be parochial, that there is inherent merit in openness, including an international orientation. The rationale for such an orientation, when articulated, seems to rest more on the concept of having the U.S. educational process contribute to the development of students from abroad than from a belief that U.S. faculty and students need to tap into the richness and educational achievements of other cultures. The sense of wanting to share seems to be genuine and widely held. It arises in part from the assumption that U.S. higher education is the best in the world. The belief that this excellent education system could be improved significantly by revising the curricula of our universities to incorporate more of the perspectives, ideas, practices, and achievements developed in other nations has fewer proponents. And the proponents are inclined to be cautious about how far to carry such an international emphasis. Here are some relevant comments by faculty members in the survey.

> Because of national and international economic difficulties, it is becoming increasingly hard for us to accept and educate

students from other countries. (State) government is unwilling to subsidize their education, but there are no international funding sources to fill in the gap. As a result, now that the political situation in the world allows for more interaction, our ability to provide a positive influence on international development and understanding is being eroded. This is a sad misfortune for all of us.

I believe it is extremely important for U.S. schools to internationalize curriculum, thereby preparing students to function in the international scene. Due to the globalization of the economy of the world, we can no longer sit by and prepare students for the traditional society in the U.S., when that is not the reality of the future.

U.S. academics have negative attitudes toward foreign professors. They do not want to collaborate with them unless they see themselves in the role of teaching them. They do not recognize that academics from other countries can indeed contribute to understanding science, math, etc.

Internationalization of curriculum in universities is a "fad," which in my view is ridiculous. More attention should be focused on making students and faculty aware of differences in culture.

Our institution is already in the vanguard of multicultural and international education. If anything, we may have carried it a bit too far.

We should educate our students about Canada and Mexico. Free trade is upon us and the Yankees don't know a damn thing about their own neighbors.

I feel that much more should be done to promote international faculty exchanges. It was only with extensive personal networking that I was able to find a teaching position abroad. We have

> many international students, are teaching more international classes, but we don't have any methods or procedures for actively promoting faculty exchanges.

Three of four full-time U.S. faculty agree that "connections with scholars in other countries are very important for my professional work" (table 9.14). Those in research universities take that stance in significantly larger numbers. Nearly identical responses were given to the statement, "In order to keep up with developments in my discipline, a scholar must read books and journals published abroad." Again, that internationalist perspective is stronger among academics at research universities.

Overwhelmingly, faculty favor exchanges across borders. More than nine in ten agree that "universities and colleges should do more to promote student and faculty mobility from one country to another." The concept of learning by being there is extremely popular. Regarding making the curriculum more international, 72 percent of the faculty agree that "the curriculum at this institution should be more international in focus." It is probably fair to say that U.S. academics seem to hold relatively positive internationalist attitudes.

More than half of all faculty do not belong to any "international disciplinary/scientific societies" and seven in ten attended no professional conferences outside the United States in the preceding three years. In both instances, research university faculty had significantly higher participation rates than others. Two-thirds of all faculty have published no articles or books in another country in the previous three years, 59 percent in the previous ten years. There is a huge difference in such publications, however, with research university faculty publishing 25 percent more foreign publications in the previous three years (table 9.15).

It is no secret that U.S. academics rarely use other languages. Only one in ten has written an article or book in another language in the previous three years. Again, academics at research universities stand out in that larger numbers of them have written and published in other languages.

Table 9.14

FACULTY ATTITUDES TOWARD INTERNATIONAL CONTACTS

	PERCENTAGE AGREEING
Connections with scholars in other countries are very important to my professional work.	75
In order to keep up with developments in my discipline, a scholar must read books and journals published abroad.	74
Universities should do more to promote student and faculty mobility from one country to another.	92
The curriculum at this institution should be more international in focus.	72

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

Notes: Figures exclude "neutral" responses to the statement. All of the figures provided in this section are for full-time faculty only. Part-time academics may be temporary employees, and they are likely to have career obligations outside the college or university that could curtail any potential international involvement.

Working on a research project with foreign colleagues is not uncommon among faculty at research universities; almost half have done so, but only one in five other faculty have had that experience in the previous three years and only one in four over the entire decade (table 9.16).

Travel abroad for study or research is only slightly more popular: 55 percent of research university faculty report such travel within the last decade; fewer than four in ten faculty at other institutions have done so over the same period (table 9.17). Teaching abroad is rare. About one in ten U.S. academics served as a faculty member in another country over the previous three years; 14 percent in the last ten years. Faculty on the staff of a U.S. college or university are not likely to go abroad for a

Table 9.15

MEAN NUMBER OF ARTICLES OR BOOKS PUBLISHED ABROAD

	LAST THREE YEARS	LAST TEN YEARS
All faculty	0.9	2.3
Faculty at research universities	1.6	4.1
Faculty at other institutions	0.6	1.5
Female faculty	0.6	1.3
Male faculty	1.1	2.7
Research-oriented faculty	1.5	4.0
Teaching-oriented faculty	0.5	1.0
FACULTY, BY DISCIPLINE		
Physical and biological sciences, mathematics, and engineering	1.3	3.4
Humanities	1.2	2.5
Social sciences and psychology	0.8	1.6
Health sciences and related fields	0.9	2.5
All other disciplines	0.4	1.1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

Note: The proportion of nonresponses to this item was unusually large. It is possible that if most of the nonrespondents had answered the questions, their response would have been zero. It may be, therefore, that the figures shown here are overestimates of the real frequencies.

Table 9.16

MEAN NUMBER OF COLLABORATIVE RESEARCH EFFORTS WITH ACADEMICS FROM ABROAD

	LAST THREE YEARS	LAST TEN YEARS
All faculty	2.3	5.5
Faculty at research universities	4.4	10.3
Faculty at other institutions	1.3	3.3
Female faculty	1.3	3.2
Male faculty	2.7	6.2
Research-oriented faculty	4.0	9.9
Teaching-oriented faculty	1.0	2.2
FACULTY, BY DISCIPLINE		
Physical and biological sciences, mathematics, and engineering	3.7	9.3
Humanities	1.2	2.9
Social sciences and psychology	1.7	4.6
Health sciences and related fields	2.8	6.6
All other disciplines	1.4	2.1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

Note: The proportion of nonresponses to this item was unusually large. It is possible that if most of the nonrespondents had answered the questions, their response would have been zero. It may be, therefore, that the figures shown here are overestimates of the real frequencies.

Table 9.17

MEAN NUMBER OF TIMES TRAVELED ABROAD FOR STUDY OR RESEARCH

	LAST THREE YEARS	LAST TEN YEARS
All faculty	1.2	3.0
Faculty at research universities	1.9	5.1
Faculty at other institutions	0.8	2.1
Female faculty	1.1	2.9
Male faculty	1.2	3.1
Research-oriented faculty	1.8	4.8
Teaching-oriented faculty	0.7	1.8
FACULTY, BY DISCIPLINE		
Physical and biological sciences, mathematics, and engineering	1.2	3.0
Humanities	1.5	4.1
Social sciences and psychology	2.0	4.9
Health sciences and related fields	0.8	2.3
All other disciplines	0.7	1.8

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

Note: The proportion of nonresponses to this item was unusually large. It is possible that if most of the nonrespondents had answered the questions, their response would have been zero. It may be, therefore, that the figures shown here are overestimates of the real frequencies.

sabbatical; only 7 percent have done so in the previous three years and 17 percent over the last decade (table 9.18).

Table 9.18

MEAN NUMBER OF TIMES SERVED AS FACULTY MEMBER AT FOREIGN INSTITUTION

	LAST THREE YEARS	LAST TEN YEARS
All faculty	0.3	1.0
Faculty at research universities	0.6	1.8
Faculty at other institutions	0.2	0.6
Female faculty	0.3	0.7
Male faculty	0.4	1.1
Research-oriented faculty	0.6	1.9
Teaching-oriented faculty	0.2	0.4
FACULTY, BY DISCIPLINE		
Physical and biological sciences, mathematics, and engineering	0.2	1.0
Humanities	0.4	1.1
Social sciences and psychology	0.7	1.3
Health sciences and related fields	0.4	1.0
All other disciplines	0.3	0.7

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the United States).

Note: The proportion of nonresponses to this item was unusually large. It is possible that if most of the nonrespondents had answered the questions, their response would have been zero. It may be, therefore, that the figures shown here are overestimates of the real frequencies.

Regardless of institutional affiliation, academics in the physical sciences, biological sciences, mathematics, and engineering top other disciplines in number of publications in foreign professional journals and books as well as in number of publications written in a foreign language. They also lead in number of months spent collaborating on a research project with an academic from another country. On average, however, these scientists, mathematicians, and engineers do not lead the parade in foreign travel for professional activities. Apparently their research work with foreign academics does not require extensive time abroad. When it comes to traveling abroad to study or do research, faculty in the social sciences and humanities lead the way; they give significantly more months to those professional activities.

It should be noted that it is social scientists who have spent the most time serving as faculty members in universities in other countries. It is somewhat unusual, by comparison, for academics in the physical sciences, biological sciences, mathematics, and engineering to engage in such service abroad. Their participation level is among the lowest.

What differences are there between the sexes in international professional activities? One might anticipate that the patterns already noted regarding the various professional activities of academics working within U.S. institutions would be repeated in their international activities. It was found, for example, that women faculty tend to be more teaching-oriented, spend more time on teaching and related activities, devote fewer hours to research, and have fewer publications overall than do their male colleagues. Further, a woman academic is less likely to have a position in a research university, where greater stress is placed on research and publications. Finally, women are the most underrepresented in the academic disciplines that display the greatest involvement in collaborative research with foreign academics. It should come as no surprise, then, to learn that those patterns carry over into women's international professional activities. Females have about half as many foreign publications and about one-third as many publications written in another language as do their male counterparts. On average, they devote about half as much time to collaborative research with foreign academics. But women's commitment to teaching and working directly with students in U.S. colleges and universities apparently does not unduly constrain potential international involvement if such activity is related to the teaching function. U.S. women academics are not appreciably different from men faculty in time given to serving as a faculty member in a foreign university or in taking sabbatical leave abroad. And they are just about as likely as men to have traveled abroad for study or the conduct of research.

Teaching-oriented faculty, regardless of institutional affiliation or sex, participate in remarkably little international professional activity. It could be argued, with some justification, that the items in this survey questionnaire may have placed a disproportionate emphasis on research and research-related professional activities. It should not be surprising that teaching-oriented academics seldom engage in collaborative research efforts with academics from other countries. And since research is usually the precursor of publications, academics who are more interested in teaching than in research could be expected to have fewer publications, in general, as well as in *foreign* books and journals, in particular.

But why should a strong interest in teaching constrain participation in other international professional activities? Teaching-oriented faculty across the nation are significantly less likely to report travel abroad for study, service as a faculty member at a foreign institution, or even a sabbatical abroad for whatever professional activity. But it is worth noting that there are at least two preconditions for going abroad to study or to teach at another university. First, the academic must be given released time to go abroad. That usually requires the institution to hire a replacement. Unless the academic who wishes to go abroad is willing to take unpaid leave, the institution will have to expend additional funds to hire a replacement. One might hypothesize that the better financed the institution, the more likely it is to grant professors the released time needed to go abroad. Secondly, the academic who is planning to go abroad generally faces significantly higher living costs in addition to the travel costs. Securing the additional income to cover those costs is often very difficult. According to our survey data, teaching-oriented faculty have lower annual incomes than do their research-oriented counterparts, and they are less likely to have research grants, many of which include funds for travel.

Further, teaching-oriented academics are underrepresented at research universities that are more likely to have funds available on a competitive basis for support of faculty who propose to study abroad. So, even if the teaching-oriented academic is successful in securing released time to study abroad, he or she is still at a disadvantage in efforts to obtain the additional funds needed. There may be competing explanations of why, in the United States, teaching-oriented academics participate so infrequently in international professional activities, but there is no gainsaying their status as "poor cousins" to their research-oriented colleagues.

When we review these U.S. data, they seem to show that faculty have positive views regarding the merit of interaction with individuals and institutions of higher education in other countries. The amount of interaction taking place, however, seems quite modest given the attitudes expressed. There appears to be a chasm between the internationalist attitudes of full-time U.S. faculty and the level of international interaction in which they are involved.

But as pointed out by Altbach and Lewis in chapter one, "The Academic Profession in International Perspective," these seemingly positive attitudes of U.S. academics are, in fact, far less internationalist than those of their counterparts in the other countries surveyed. When item-by-item comparisons across countries are made, U.S. academics rank last or next to last in the proportion agreeing with international statements such as: "Connections with scholars in other countries are very important to my professional work"; "in order to keep up with developments in my discipline, a scholar must read books and journals published abroad"; "universities should do more to promote student and faculty mobility from one country to another"; and "the curriculum at this institution should be more international in focus."

Further, U.S. faculty participation in international activities and programs is generally lower than that of academics in the other countries studied. Taken as a whole, these findings indicate that American academics compare poorly with their colleagues in other countries when it comes to professional efforts to learn from and contribute to the international community of professionals in higher education. It is not misleading to describe U.S. faculty as parochial in outlook and behavior as regards international exchange.

CONCLUSION

Evidence from this survey suggests that U.S. faculty, despite some media stereotypes to the contrary, are hardworking, dedicated professionals who systematically make the contributions expected of them. They teach undergraduate, graduate, and professional students; carry on research and other creative activity; and participate in the administration of the colleges and universities at which they are employed. In addition, they give about one-eighth of their own time to various service activities. Their average work week is far above the national mean, fifty-three hours weekly for faculty with full-time contracts.

As with most organizations composed of professionals, there are specialists within the academic enterprise. Some faculty specialize in teaching, engaging in little or no research activity, while many others concentrate primarily on research and similar creative efforts. Those emphasizing teaching generally receive lower salaries and have a more difficult time securing tenured appointments. Their reputations as professionals tend to be limited to the campuses where they are employed.

Academic research specialists tend to teach fewer and smaller courses, and more advanced-level courses. Through their efforts, funds for the support of research flow into the university for the purchase of equipment, stipends for internships and assistantships, and salary for faculty, and inevitably this stream of dollars provides the necessary financing for the support staff that has found a permanent niche in the structure of the institution. The research grants are used by the specialists primarily for conducting research and publishing the results. Through these publications, numerous new opportunities emerge—academic research specialists whose reputations go far beyond the campus, thereby enhancing the image of the individual, the academic department, and the university as a whole. The better the reputation, the easier it becomes to secure additional funds for research.

This pattern of rewarding academics for research and publication, more than for teaching, has been followed for decades in research universities. In recent years, other institutions have also begun to move in that direction. Our evidence shows that the pressure on the academic to conduct research and publish is now quite widespread. On most campuses, being a superb teacher will no longer by itself bring the highest rewards.

America's academics are conflicted about the opportunities they have and the constraints within which they work. On the one hand, they are quite positive about their job situation as a whole. But they also believe the profession is held in low esteem by the public and that academic prerogatives are being increasingly encroached upon by outside special interest groups and growing bureaucracies. Again, they are pleased with the professional autonomy they find on campus, but express deep concern over what they see as inadequate financing for salaries and the equipment and services needed to carry out their professional responsibilities.

Faculty in the United States have not been particularly mobile over the past several decades. Nevertheless, almost four in ten under fifty-five years of age anticipate leaving their current institution within the next five years. Most likely to leave are women, the nontenured, those more interested in research than teaching, and those now at research universities. Those expecting to move point most frequently to inadequate income and resources for research as reasons for leaving their current institution.

For U.S. faculty, there seems to be a "colonial," a "we know what is best" strain, running through the academic mindset regarding internationalism in higher education. Our academics urge students and faculty from abroad to come to the United States for study and collaborative work—to learn from us, so to speak. Much less effort is made, however, to go abroad for study or collaborative research. Taking a sabbatical to teach or conduct research at a foreign institution is quite rare. While full-time academics generally have positive views regarding the merits of interaction with their counterparts abroad, the amount of interaction taking place seems quite modest. There appears to be a chasm between the internationalist attitudes of U.S. academics and the level of international exchange in which they are involved.

EUROPE

Oliver Fulton

THE ACADEMIC PROFESSION IN ENGLAND ON THE EVE OF STRUCTURAL REFORM

DURING THE LAST DECADE, British higher education has been embroiled in a process of exceptionally rapid change, amounting to what can surely be described as a radical transformation.[1] Key elements of this transformation, which has been implemented mainly by deliberate acts of government, include the following:[2]

- substantial and rapid *growth in student numbers*: institutions of higher education (hereafter HEIs) have experienced enormous increases in size;[3]
- substantial and rapid *decline in per capita funding*: HEIs have been given very limited extra resources to enable them to cope with their increased intakes; indeed, the main incentive for expansion has been a policy of annual reductions in per capita student funding that has forced HEIs to expand in order to maintain their previous income;
- *changes in resource allocation*: the previous formula of a single block grant, based on historic costs, has been replaced by separate resource streams for teaching and research, each competitively awarded in response to newly devised and still changing combinations of peer and external assessment and "market" indicators; there has also been great pressure on HEIs to develop new sources of external funding;
- *structural change*: in 1992 the polytechnics—institutions that had been founded around 1970 with the aim of providing mainly vocational higher education to a local clientele, and that had never been funded for research—and a number of larger

colleges of higher education were redesignated as universities, and absorbed with the previously existing universities into a newly created common planning and funding system;

- *managerialism*: government pressure has been applied to reshape the administration of the "old" universities from a collegial style to the managerial models in operation in the former polytechnic sector;[4]
- *inspection and accountability*: the older universities have been subjected to processes of both inspection and accountability that are quite unprecedented in the U.K. university sector, and considerably more interventionist than those applied to universities elsewhere;
- *conditions of service for academic staff*: formal academic tenure has been abolished for the staff of the older universities;[5] and, in both older and new universities, salary levels have declined not only relative to the private sector but also relative to other public-sector employees.[6]

It is certainly possible to explain most, if not all, of these changes as symptoms of British higher education's transformation from an elite to a mass system, at a speed that has been largely dictated by a rapid rise in the demand for higher education.[7] But many of them can also be, and often are, viewed as examples of the exceptionality of the United Kingdom under "Thatcherism." In this interpretation, they form part of the current and recent Conservative administrations' determined attacks on what "Thatcherites" define as the privileges of the professional classes, especially those in public employment. Thus, the moves toward managerialism and accountability are often described as politically motivated attacks on the professionalism of academic staff, whose professional status has also been threatened by the changes in conditions of service referred to above.

Whatever interpretation may be put on its antecedents, the changing experience of academic staff in higher education is much talked about (in "senior common rooms" and the pages of *The Times Higher Education*

Supplement) in terms that suggest a considerable degree of consensus. Those elements that can be more or less objectively documented include:

- declining relative pay, and the imminent end of national pay scales;[8]
- low recruitment and promotion levels, which, in the short term, dampen the career prospects of graduate students and younger staff (and hence are particularly damaging for the prospects of underrepresented groups), and may well threaten a recruitment crisis in ten to fifteen years when a large proportion of the present severely bunched staff retires;
- increased teaching loads;
- heightened expectations of research income and output—expectations that have been translated into considerable achievements, but at the cost, so it is claimed, of steadily increasing workloads;
- and in the old universities, the loss of automatic research support and research time for members of those departments not highly rated in assessment exercises. Morale is widely agreed to be low.

The Carnegie Foundation survey was exceptionally well timed. It was administered during the last term (summer 1992) in which the formal distinctions between *universities, polytechnics*, and major *colleges of higher education* still existed, and it covered all three types of institutions. It thus provides an invaluable benchmark for future surveys, which will be able to document the emergence of a unitary university system, with the organic rather than structured diversity that this presumably implies. Given this background, it seemed appropriate that the first analysis of the data should pay particular attention to aspects of institutional diversity and differentiation: a key theme for this chapter, therefore, will be to examine how far it is appropriate to think of a single academic profession and the extent to which day-to-day activities, conditions of work, and academic orientations differ across the three types of institution. Since much of the analysis that follows uses institutional type as the main analytic category, a brief description of the formal position is appropriate.

Until the 1960s, virtually all higher education was provided by universities. The standard procedure had been that any new institution should undergo a period of "apprenticeship" as a "university college," teaching for degrees to be awarded by an established university, before eventually obtaining independent status. Around 1960, in a break with this tradition, ten new and fully independent universities were created on "green field" sites without apprenticeship; but after that point government called a halt to any growth in the number of universities. Instead, the polytechnics were created during the late 1960s as an alternative nonuniversity sector, in parallel with developments in many other countries.[9] Their original brief was to provide mainly vocational courses for locally based students, responding as directly as they could to the needs of their local community and the local labor market. Founded by and managed through local education authorities (LEAS), whose main concern was compulsory schooling, they took time to emerge as a national force. Indeed, their first moves toward a more comprehensive type of higher education (mainly by widening their course offerings and their recruitment base) were criticized as "academic drift." However, especially during the 1980s, the polytechnics gradually gained recognition for positive distinctiveness rather than being viewed merely as second-class (or worse) universities.[10]

Throughout this period, however, polytechnic students' degrees were awarded neither by universities nor by the polytechnics themselves but by the Council for National Academic Awards (CNAA). This was a national degree-granting organization, set up in the 1960s, which had begun by keeping the institutions that taught for its degrees on a very tight rein, carrying out regular and detailed inspections both of individual courses and programs and of whole institutions; but gradually permitted greater degrees of autonomy and self-regulation, though still subject to formal "validation." Although the "binary system" that had set up the polytechnics was presented as a positive move to encourage the emergence of a "socially useful" sector to challenge the more elite, if not elitist, university model of higher education, it is arguable that its main function, in the United Kingdom as elsewhere, was to protect the university model from erosion under the pressures of increased demand and declining per capita resources. Certainly the reaction of some of the old universities to the recent merger suggests that it is quite plausible to see the end of the binary system as a major threat to a distinctive British idea of a university.

As far as polytechnics' staff are concerned, two points were and still are crucial. First, the overwhelming majority of the staff of polytechnics were graduates of universities and not of polytechnics: for obvious historical as well as status reasons, polytechnics employed very few of their own graduates, although the number has gradually increased.[11] And secondly, the job conditions of university and polytechnic staff differed. Not only were they paid on different scales (polytechnic staff generally earned slightly less at roughly comparable career points), with a different contractual status (polytechnic staff were never eligible for formal academic tenure); but in addition, the polytechnics were always defined as primarily teaching institutions, with no built-in funding for research, and no contractual right to research time or resources for their staff.

Finally, the colleges of higher education (CHEs) almost all began their existence as specialist teacher-training institutions, usually called colleges of education, of varying age and affiliation (some local government controlled, some church maintained, and a few specializing in specific pedagogies). During the 1970s and 1980s those that did not merge with polytechnics (and many did) gradually diversified their course offerings, taking the title of college of *higher* education as they did so. Some have taken on a wider range of liberal arts courses and of primarily non-science-based vocational qualifications other than teaching (nursing, librarianship, social work, etc.). Most of these still retain a strong emphasis on teacher training, and some were closed as the demand for teachers declined with changes in demography and in the teaching career. Some other colleges of education merged with colleges of further education (whose main function is pre-degree-level teaching), expanded their degree-level work, and in due course, like the polytechnics before them, became substantial and diversified institutions. A handful of the largest of these colleges of education joined the polytechnics in acquiring university status in late summer 1992. Because of their continued emphasis on teacher education, most of the colleges have been exceptionally vulnerable to direct government intervention in both their size and their curriculum (the British government retains a strong planning role in relation to teacher-training numbers and the content of teacher training).

The demolition of the formal binary system has taken place in stages and has certainly not yet worked its way through to create many aspects of uniformity in reality between the "old" and the "new" universities. The polytechnics and most of the CHEs acquired independence from their LEAs ("corporate status" or "incorporation") in 1989, with direct central government funding replacing a complex mixture of direct and indirect resourcing.[12] But they appear to most observers to have retained many aspects of the management structure and administrative culture that had characterized the previous era, making them much more weakly collegial than the older universities. In 1992 the polytechnics and the largest CHEs were given university status. As a result, they acquired both full degree-awarding powers in their own right and also formal parity in relation to a new, single "funding council" charged with managing the whole higher education system in a given country[13] on nominally equal terms.[14] One major consequence of this parity was that these new universities were permitted for the first time to compete for core funding to support basic/strategic research.[15]

However, the national subject-based assessments through which research funding is now allocated are based on past performance, and it is therefore no surprise that the new universities have so far attracted only a tiny proportion of core funds (even though a number of them have for some time been active in applied research, which is expected to carry "full cost" overheads paid by the sponsor or client). Nor have the new universities' staff contracts yet been altered to include either expectation or opportunity for more than minimal research or scholarly activity—aside from specific and exceptional research-grade appointments. On the teaching side, the funding formulas previously applied to the polytechnic and college sector, which built in substantial rewards for low-cost growth in student numbers, were adopted across the whole system. Until then, most of the old universities had been relatively cautious about increasing student numbers in order to preserve their research capacity. Nor had they ever (with a few exceptions) been distinguished for outreach activities, whereas one of the polytechnics' main claims for distinctiveness was their successful use of innovative course structures and curricula, flexible timing, and diversified entry criteria to expand the social base and the age range of their students.

The effects of merging the two systems are likely to be mixed. It is fairly clear that policymakers had no intention of creating some eighty or ninety research universities out of the mix of forty-four old universities, thirty-one polytechnics, and a number of large CHEs, Scottish "central institutions," and so on.[16] In fact, a more plausible interpretation is that the intended outcome of the merger, and of the new and increasingly selective funding strategy that has accompanied it, is a core of between ten and twenty genuine research universities, and a large number of institutions mainly devoted to teaching. The old universities have already discovered that they are losing teaching funds to the more expansive and less expensive new universities, and that the limited amount of research funding is being spread very thinly.

Their first reaction was to expand their student numbers as fast as they could physically manage—until a government policy reversal, taking effect in 1994, which was designed to sharply slow down, if not halt altogether, the rate of expansion. Thus some of the old universities' financial futures are now fairly precarious, and their room for maneuver is very limited. Many of the new universities are now also under financial pressure, having built expansion into their strategies for the foreseeable future, only to find it suddenly denied them. And nearly all of them are also determined to compete, against considerable odds, for the status and resources that heightened research activity could bring. In fact, despite the general approval that they have achieved for their access and outreach policies from government and the public, there is now some doubt whether competition with the older universities may force them to weaken their social commitments. Finally, the CHEs also face an uncertain future. A few large institutions acquired university status alongside the polytechnics in 1992, and a few others have similar ambitions. But for most of the smaller colleges (of which there are still many), with declining teacher training numbers and new government policies that virtually eliminate the demand for instruction in pedagogy, the prospect is of decline leading either to merger with larger and more diversified neighbors or even to eventual closure.

Before turning to the academic profession, the main subject of this chapter, it should be noted that the preceding paragraphs were composed, with considerable hindsight, in 1994. In early summer 1992, when the survey was undertaken, the merger, though long announced and planned for, had not yet taken place and not all of these trends were as yet clear. In particular, there was no indication that government policy would shortly turn against expansion.

DEMOGRAPHIC PROFILE

Size of the Profession

As befits a higher education system recently emerging from elite status, the British academic profession is relatively small. According to the latest official figures,[17] the universities employed some 52,000 full-time academic staff across the United Kingdom in 1990 (40,000 in England, with which this study is concerned), and another 7,000 part-time (6,000 in England); while the polytechnics and CHEs employed 34,000 "FTE" (*sic*) staff in the United Kingdom (27,000 in England)—giving a total of perhaps 100,000 men and women across the United Kingdom (approximately 80,000 in England).[18]

Because of numerous inconsistencies and gaps in the collection of statistics, it is not possible to give accurate historic estimates of growth in staff numbers; but the broad trends are clear enough.[19] At the turn of the century the total British university teaching profession numbered well under 5,000, and it increased quite slowly until the end of the Second World War, when the pace of growth sharply increased, yielding a U.K. total of about 15,000 by the time of the Robbins Enquiry (which included a major data collection exercise) in 1962. A mere eight years later, in 1970, it had increased by roughly 120 percent to some 33,000.

Williams et al.[20] calculate that for several years in the mid-1960s the universities were recruiting as many as 60 percent of their own output of higher degree graduates—and indeed that in most subjects any *first* degree graduate with good or reasonable achievements would have had little difficulty in obtaining an academic post either in a university or in the new and equally rapidly growing polytechnic sector.[21] The profession still shows the outcome of those circumstances today, all the more so since growth then slowed dramatically, especially in the universities, where it dropped from 120 percent over the eight years to 1970 to roughly 25 percent over the following nine years to 1979, and then to a mere 11 percent over the next nine years; but that growth has now risen in the last five years to nearly 4 percent per year.[22]

Comparable figures for the polytechnic sector are simply not available. In crude terms, however, the growth of their staff numbers was probably as spectacular as the universities' in the 1960s. It has certainly been more rapid than the universities' since then, if from a much lower baseline. While the universities' staff grew by roughly 60 percent between 1970 and 1990, that of the polytechnics roughly doubled, and their growth rate was probably faster throughout the period. This is partly because of different policies with respect to student numbers during the 1980s. During the first half of the decade, when resources for both sectors were under pressure, the universities actually cut back on their student numbers, trying to maintain a relatively constant student–staff ratio while also shedding older staff through early-retirement schemes. The polytechnics, on the other hand, chose to increase student numbers, but without expanding their staff size. In the last few years, however, both sides have expanded their student intakes dramatically and have been rewarded with some extra resources to spend on new staff, but even so, at the price of sharply deteriorating student–staff ratios.

The latter deserve a brief discussion in their own right. Official (if less than totally reliable) figures show that in the period 1979–90 English university student–staff ratios moved steadily up from 9:1 in 1979 to 12:1 in 1990; while the polytechnics, which started the decade at a lower ratio than the universities (8:1 in 1979), partly owing to unfilled places in unpopular subjects, had reached 15:1 by 1990.[23] The ratios have certainly continued to increase since then. Needless to say, these figures conceal sharp disciplinary differences, with most arts, social science, and other non-laboratory-based departments in the former polytechnics and many in universities now running at well over 20:1.

Age

The international figures suggest that the academic profession in England is relatively young in comparison with many of the other countries surveyed. However, simple comparisons may be deceptive, since the age of entry to the profession can vary considerably; it is noticeable that the mean age of English academics is higher than that for the Netherlands and Germany, two countries whose training period is normally longer than in Britain.[24] In any event, it is generally agreed (by the employers and the professional associations) that despite premature retirement schemes, the profession's mean age has been creeping up for some years. The median age of the academics in the survey was forty-seven in the universities and polytechnics and forty-eight in the colleges.[25] There are differences between the sectors, with more than one-fourth of university staff but only one-fifth of polytechnic and college staff born before 1941 (i.e., aged fifty-two years and over at the time of the survey) (table 10.1). But in each case those proportions are relatively low, reflecting both the slow build-up of recruitment before the mid-1960s and, probably, the introduction of early retirement schemes in recent years.

The recruitment boom that began in the mid-1960s is clearly visible: over one-third of all staff in universities, slightly more than two-fifths in polytechnics, and more than half in colleges were born in the period from 1941 to 1950. The proportion in the next five-year period drops sharply in each sector, and those born since 1955 (i.e., aged thirty-six or less) form approximately one-fourth of staff in universities and polytechnics but only 13 percent in the colleges. The particularly difficult situation of the colleges is clearly visible: more than half of their staff were aged between forty-two and fifty-one years at the time of the survey, and there had been little recent recruitment.

Table 10.1

AGE OF THE ACADEMIC PROFESSION, BY INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY	POLYTECHNIC	COLLEGE
DATE OF BIRTH			
1940 or earlier	26	20	21
1941–45	18	20	25
1946–50	17	21	27
1951–55	13	14	14
1956 or later	26	24	13
Total	100	99	100
(N)	(1,155)	(483)	(263)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

Gender

The deep extent to which higher education in England—like the other European countries surveyed—is still a male-dominated profession in the last decade of the twentieth century can be seen in tables 10.2 and 10.3. Less than a quarter of all academics responding to the survey were women; and in a pattern that reflects some familiar correlations of gender and status we see (table 10.2) that whereas no less than 41 percent of college staff are women, the figure is 32 percent for polytechnics and only 15 percent for universities. There is, of course, a disciplinary dimension here: the colleges' subject specialties in particular are more likely to be those traditionally occupied by women, while the universities' scientific, technical, and medical biases no doubt reduce women's opportunities in a country where subject sex-stereotyping is still strong. But the sharp difference between polytechnics and universities deserves further analysis (see also below on gender and rank).

In table 10.3 (which combines polytechnics and colleges) it appears that both sectors have increased their recruitment of women in recent

Table 10.2

FEMALE ACADEMICS, BY INSTITUTIONAL SECTOR

	UNIVERSITY	POLYTECHNIC	COLLEGE
Percentage of females	15	32	41
(*N*)	(1,155)	(484)	(264)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

Table 10.3

FEMALE ACADEMICS, BY AGE AND INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY	POLYTECHNIC/COLLEGE
DATE OF BIRTH		
1940 or earlier	9	21
	(304)	(150)
1941–45	10	30
	(200)	(158)
1946–50	18	38
	(189)	(169)
1951–55	22	41
	(152)	(104)
1956 or later	21	47
	(290)	(150)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

years, but the proportion of women in the *youngest* age group in the universities, while double that in the oldest, is still no higher than that in the *oldest* age group in polytechnics and colleges; moreover, the polytechnics and colleges appear to have increased their recruitment of women to fairly near parity in recent years, whereas the proportion of women in the youngest age group in universities is very little different from those in the next two categories.

Academic Discipline

As was suggested earlier, the subjects are distributed very differently across the sectors—as in binary systems elsewhere (table 10.4). As might be expected, the universities have more respondents in the core disciplines within natural science, social science, and humanities (with some two-thirds of all staff responding to the survey), while in the polytechnics two-thirds of all staff are in vocational fields. And as was suggested earlier, the CHEs have a large proportion of staff in the "arts-based" vocational fields, notably in education; they also have more staff in social science and the humanities than the polytechnics, but fewer in natural science. Thus their historic emphasis on education is still apparent (and it should be noted that many of those staff working in other departments are mainly providing the academic subject base for future school teachers).

Academic Rank

General

There are differences between the universities and the former "public sector"[26] in the nomenclature of academic rank. In the universities the main career grade is *lecturer*. *Senior lecturer*, and *reader* and *professor* beyond it, are promotions by virtue of special achievement.[27] In the polytechnics and colleges, *senior lecturer* is the title of the normal career grade,[28] and the promoted rank roughly corresponding to a university senior lectureship is *principal lecturer*. The four-part recoded classification that is illustrated in table 10.5, and used hereafter, reflects this difference.

Table 10.4

PROFILE OF SURVEY RESPONDENTS, BY SUBJECT AND INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY	POLYTECHNIC	COLLEGE
NATURAL SCIENCE[*]	30	14	12
[+]Biological science	13	4	3
[+]Mathematics	4	4	5
[+]Physical science	12	4	3
SOCIAL SCIENCE[*]	24	12	16
[+]Social science	18	9	12
[+]Psychology	4	2	3
HUMANITIES[*]	15	8	17
[+]Humanities	14	7	15
VOCATIONAL—ARTS-BASED[*]	13	30	43
[+]Business	2	13	5
[+]Education	8	11	23
[+]Fine arts	2	3	12
VOCATIONAL—SCIENCE-BASED[*]	18	37	12
[+]Computer science	1	1	4
[+]Engineering	5	11	0
[+]Health science	10	13	3
[+]Technical	2	10	3
[+]All other	5	8	8
TOTAL[*]	100	101	100
	(1,093)	(438)	(245)
TOTAL[+]	100	100	99
	(1,155)	(476)	(266)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

[*] Standard five-part classification excluding mixed/other fields—used hereafter.

[+] Carnegie fourteen-part classification.

Table 10.5

ACADEMIC RANK, BY INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY	POLYTECHNIC	COLLEGE
LEADERSHIP	16	6	11
Vice-chancellor	—	0	0
Professor	15	3	1
Head of school/department	1	3	10
SENIOR RANKS	27	18	15
Reader	8	3	2
Senior lecturer (univ.)	19	—	—
Principal lecturer (poly./coll.)	—	15	13
CAREER GRADES	46	75	73
Senior lecturer (poly./coll.)	—	61	60
Lecturer	46	13	12
Assistant lecturer	—	1	1
RESEARCH GRADES	10	1	1
Senior research grades	2	0	0
Research officer/fellow	4	—	1
Research associate	3	0	—
Research assistant	1	—	0
TOTAL	99	100	100
(N)	(1,146)	(484)	(260)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

In substantive terms, there are considerable differences between the sectors. First, there is the virtual absence of research staff from the polytechnics and colleges,[29] in line with their historically different mission. And second, three-quarters of all polytechnic and college staff are in nonpromoted grades, compared with less than half of those in universities. This reflects an important difference not just in career structures but in the cultures of the different types of institution. The proportions of senior lecturers in universities and principal lecturers in polytechnics and colleges—the lowest promoted grades—are not too dissimilar: it is in the highest grades, especially professors and readers, that the universities stand out. And this reflects different criteria for promotion. In the universities, promotion is a reward for achievements, most frequently in research,[30] and any management responsibilities (such as deanships or department chairs) are generally held in rotation, with appointment by election from all those eligible. In the polytechnics and colleges, management posts are normally permanent appointments, made either on the basis of seniority or after internal (occasionally external) competition on criteria specific to the post. Management responsibility, rather than research achievement, is in fact the primary criterion for promotion, both to the "leadership" grades and to principal lectureships.[31] It is clear that the new, supposedly unitary, system has begun with a very diverse set of inherited assumptions about the nature of the academic career.[32]

Salaries

Some of the consequences of these differences can be seen in the salary distributions shown in table 10.6.[33] At the lower end, the relatively high proportion of polytechnic staff earning less than £22,900 is presumably a function of two factors: the relatively higher chance of promotion in universities and the relatively high median age of college staff. At the other end, the sharply higher chance of earning a salary of £31,400 or more in universities is certainly a function of the distribution of ranks. By chance, this figure is very close to the nationally agreed upon minimum salary for university professors.

It has been a common complaint of university staff in recent years—reflected in table 10.7, where they are even less contented with their present salaries than staff in polytechnics and colleges—that university salaries have not maintained the relative advantage compared to other forms of higher education that they held in the 1960s. The differences shown in table 10.6, even if they are due to better promotion

Table 10.6

TOTAL EARNED INCOME FOR THE CURRENT YEAR, BY INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY	POLYTECHNIC	COLLEGE
Below £22,900	35	43	36
£22,900–£31,399	44	48	57
£31,400 and above	21	9	6

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

Table 10.7

RATING OF CURRENT SALARY, AND PERCEIVED PROSPECTS OF SALARY IMPROVEMENT, BY INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY		POLYTECHNIC		COLLEGE	
	CURRENT	FUTURE	CURRENT	FUTURE	CURRENT	FUTURE
Excellent	2	1	1	2	1	1
Good	21	9	26	9	22	7
Fair	44	24	60	24	54	25
Poor	33	61	22	62	22	63
Don't know	1	4	—	3	1	4

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

prospects rather than different salary scales, help to put this complaint in perspective. However, the respondents express very high levels of dissatisfaction with current salary levels and a near-universal pessimism about future prospects in each type of institution (table 10.7). The international figures make it clear that this kind of discontent is not endemic to the academic profession worldwide. Whatever the objective facts, this table is a clear indicator of low morale in the United Kingdom.

Rank, Age, and Gender

Leaving gender aside for a moment, the university and non-university sectors differ in the overall relationship of rank to age (table 10.8). In the universities, promotion continues up to the highest age group (i.e., those well over age 50), whereas in polytechnics and colleges there are almost as many "leaders" in the male 1951–55 group as in the older groups, and there is little difference for either gender in the proportion of "senior" ranks from the 1941–45 group onwards. This indicates once again how universities promote for lifetime achievement, while polytechnics and colleges make their promotions on the basis of anticipated fitness for leadership, which they evidently diagnose at a younger age—or not at all.

But the table also shows the strikingly different promotion patterns of men and women. The lower achievement of women is now a matter of considerable debate and concern in the United Kingdom, with most institutions having recently developed equal opportunities policies—albeit often relatively weak by North American affirmative-action standards. What is striking here, however, is not just the overall gender difference but the age- and sector-specific profiles. The age-specific differences are very large indeed—especially and dispiritingly so among the younger age groups. In the universities, only the oldest age group shows some modest catching up, but there are still very substantial inequalities, if less than the huge differences among the younger groups. In the polytechnics and colleges, the oldest age group actually shows near-equality—for women in this sector, unlike for men, promotion does continue until they reach their fifties. And compared with the universities, there are rather less extreme differences earlier on, though taken on their own they are very substantial. The attempt has been made to defend, or at least to explain, the status quo, in the sense that so long as promotion, especially in universities, depends heavily on research achievement, women's lack of promotion can be roughly correlated with lower publication rates and other measures of research activity.[34] But any

Table 10.8

ACADEMIC RANK, BY SEX, AGE, AND INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY			POLYTECHNIC/COLLEGE		
	MALE	FEMALE	ALL FACULTY	MALE	FEMALE	ALL FACULTY
DATE OF BIRTH						
1940 or earlier	33	23	31	14	10	13
	(74)	(50)	(72)	(40)	(32)	(39)
1941–45	26	0	23	14	0	10
	(63)	(29)	(59)	(37)	(25)	(33)
1946–50	18	0	15	9	5	7
	(58)	(15)	(51)	(30)	(14)	(24)
1951–55	8	3	7	12	0	7
	(31)	(15)	(28)	(32)	(0)	(19)
1956 or later	1	0	1	4	0	2
	(8)	(3)	(7)	(11)	(3)	(7)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

Note: Open figures refer to "leadership"; figures in parentheses to "leadership" and "senior." For an explanation of "leadership" and "senior" ranks, see table 10.5.

such defense presupposes that research *opportunities* are roughly equal; nor does it help us to understand the inequalities in the polytechnics and colleges, where the promotion criteria and patterns are so different. The survey will need further careful analysis to elaborate where the explanation may lie.

BACKGROUND

Qualifications

English universities and, even more, polytechnics and colleges can hardly be described as international insofar as their recruitment is concerned. Only 7 percent of university staff and 3 and 4 percent, respectively, of polytechnic and college staff obtained their highest degrees outside the United Kingdom. (Of those in this category in the universities, almost 40 percent obtained their degree in the United States, and most of the rest in European countries.) For many academic staff, that highest degree is not a doctorate; in the colleges 60 percent hold a master's or other professional degree, and another 17 percent hold a bachelor's, and the figures are 44 and 22 percent, respectively, in polytechnics (table 10.9). Consequently, only one-fourth of all staff in colleges and one-third in polytechnics hold doctorates. In universities the figure is only 70 percent.

It should be noted that in the colleges an additional 16 percent of academic staff are working for doctorates and a further 8 percent for master's degrees; the comparable figures are 12 and 6 percent in the polytechnics and 6 and 5 percent in universities (table 10.10). Thus quite a substantial proportion of those without doctorates evidently find it desirable to improve their qualifications. But this still leaves one-fifth of all university staff, and roughly half of all polytechnic and college staff, who neither hold a doctorate nor aim to do so.

It is, of course, no surprise that these qualifications are highly subject specific. Using the discipline categories defined by Carnegie, 95 percent of all staff in the physical sciences already have doctorates, and 98 percent either have them or are working toward them. In the biological sciences

Table 10.9

HIGHEST EARNED DEGREE, BY INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY	POLYTECHNIC	COLLEGE
Doctorate	70	34	23
Master's or professional	23	44	60
Bachelor's	7	22	17

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

Table 10.10

HIGHEST DEGREE HELD OR HIGHEST DEGREE WORKING TOWARD, BY INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY	POLYTECHNIC	COLLEGE
Have doctorate	70	34	23
Working for doctorate	6	12	16
Working for other degree	5	6	8
All other respondents	19	48	53

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

the corresponding figures are 93 percent (94), followed by mathematics 66 percent (70), engineering 66 percent (74), the humanities 62 percent (71), and the social sciences 55 percent (66). At the other end of the spectrum are the vocational subjects, mainly taught outside the universities: education 30 percent (46), business 23 percent (35), and, finally, fine arts 17 percent (33). Within sectors and in broader subject areas the differences are reduced (table 10.11). In universities the range is from the natural sciences 93 percent (95) to vocational fields (science-based)

Table 10.11

STAFF HOLDING DOCTORATE OR WORKING FOR DOCTORATE, BY DISCIPLINE AND INSTITUTIONAL SECTOR (PERCENTAGES)

	NATURAL SCIENCE	HUMANITIES	SOCIAL SCIENCES	VOCATIONAL (ARTS)	VOCATIONAL (SCIENCE)
University	93	72	67	50	49
Polytechnic	80	42	30	17	29
College	48	39	40	7	10

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

49 percent (55); in the colleges the range between the same two areas is 48 percent (59) to 10 percent (17).

Career Experience

There are a large number of interesting career-related questions that we cannot discuss here in detail. Among these are, first, the rather limited mobility of English academic staff: the average university staff member has already spent ten years (median) in his or her present institution out of the sixteen years he or she has been employed in any higher education institution; the comparable figures are seven years for polytechnics (out of fourteen years in higher education) and seven (out of ten years in higher education) for colleges. And second, their apparently limited experience in higher education outside their own sector: fewer than 15 percent of university staff have worked in a nonuniversity institution; fewer than 25 percent of polytechnic staff and fewer than 20 percent of college staff have worked in a university. Surprisingly, however, experience of professional work outside higher education is quite wide; more than half of university staff (with a median time of six years), over four-fifths of polytechnic staff (median nine years), and almost seven-eighths of college staff (median ten years) have worked elsewhere.[35] But the United Kingdom is not, by and large, a country in which large numbers of staff hold other salaried posts at the same time; practically none of those surveyed held full-time posts elsewhere, either academic or nonacademic. Roughly 5 percent in each sector held part-time nonacademic posts; and from 6 percent in universities, to 9 percent in polytechnics, and 13 percent in colleges held other part-time academic posts.

WORK SITUATION: TEACHING AND RESEARCH

As elsewhere, for most academics the "teaching load" is the defining element of their work situation (table 10.12).[36] It is clear that in the polytechnics and colleges teaching dominates staff activities in term time: 56 percent of staff in polytechnics and 62 percent in colleges spend more than twenty-one hours per week on teaching—and even in universities

Table 10.12

HOURS PER WEEK SPENT ON TEACHING, BY INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY		POLYTECHNIC		COLLEGE	
	TERM	VACATION	TERM	VACATION	TERM	VACATION
0	4	12	0	8	1	11
1–5	10	51	4	32	3	35
6–10	15	27	7	34	6	27
11–15	17	6	14	10	7	9
16–20	22	3	18	9	20	10
21–30	23	1	33	4	32	5
31+	9	1	23	3	30	2
Median	18	5	25	8	25	6

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

the figure is 32 percent. These figures, and especially the medians given in table 10.12, are higher than those in most of the (obviously) comparable countries in the international survey—and it is also the subjective experience of academics in each sector; many of the handwritten comments on the questionnaire confirm that teaching loads have increased sharply in recent years (almost inevitably, given the increased student–staff ratios discussed earlier).[37]

The sharp difference between the universities and the polytechnics and colleges is characteristic of differences between "elite" research institutions, as British universities have all historically been considered, and more comprehensive institutions: a difference that is now under threat with the prospect of the gradual withdrawal of research funding from large sections of British universities. There are smaller differences between sectors during vacations (also shown in table 10.12). But it is worth noting that while universities have relatively long vacations during which a substantial amount of research is done (see below), polytechnic and college terms are longer and a higher proportion of their vacation is probably taken as holiday.[38]

With regard to the balance of responsibility for undergraduate and postgraduate (postbaccalaureate) teaching, two points are worth emphasizing (table 10.13). First, even though postgraduate teaching has now become a very substantial part of most universities' responsibility, this has not led to a sharp division of labor or to the growth of a class of teachers exclusively concerned with postgraduate teaching: there are still more undergraduate than postgraduate specialists in the universities, and the large majority teach at both levels. And second, there is a substantial postgraduate effort in the polytechnics and colleges as well. In each of these sectors, roughly half of all staff have postgraduate teaching responsibilities.

The most striking feature of the research effort is how little time is now spent on research during term time, even in the universities, where median term-time research hours are only fourteen, and 45 percent of staff have ten hours or less per week in which to pursue what can reasonably be called their central academic interests (table 10.14). Although there are subject variations (see below), it seems clear that for many university staff the demands of teaching and administration make it quite difficult to carry out their contractual duty. The low amount of research time in polytechnics and colleges is to be expected—indeed by the standards of government policymakers and some institutional managers it might even be regarded as unacceptably high. But to balance this, the large amount of time spent on research during vacation time is also notable—not just in universities where it is to be expected, but also in the polytechnics and colleges, though to a lesser degree.

Looking at the median hours spent per week on each of five activities across the three sectors (table 10.15), it is notable that hours devoted not only to administration but also to service and "other" activities are fairly constant across all three sectors, and that the latter two are quite low. In all three sectors research is the main activity during vacations and teaching is the primary one during term time. As hinted above, total hours worked during vacation tend to be lower than term-time hours

Table 10.13

TEACHING RESPONSIBILITIES, BY LEVEL OF INSTRUCTION AND INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY	POLYTECHNIC	COLLEGE
Undergraduate	18	45	52
Both undergraduate and postgraduate	70	51	44
Postgraduate	10	4	3
Not teaching this year	2	1	1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

Table 10.14

HOURS PER WEEK SPENT ON RESEARCH DURING TERM TIME AND VACATION, BY INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY		POLYTECHNIC		COLLEGE	
	TERM	VACATION	TERM	VACATION	TERM	VACATION
0	2	1	6	4	9	3
1–5	17	4	48	17	52	22
6–10	26	10	29	27	28	28
11–15	15	8	8	9	4	13
16–20	14	14	4	20	4	15
21–30	14	29	4	14	3	12
31+	12	34	1	9	0	8
Median	14	25	5	13	5	10

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

Table 10.15

MEDIAN NUMBER OF HOURS SPENT PER WEEK ON EACH OF FIVE ACTIVITIES, BY INSTITUTIONAL SECTOR

	UNIVERSITY		POLYTECHNIC		COLLEGE	
	TERM	VACATION	TERM	VACATION	TERM	VACATION
Teaching	18	5	25	8	25	6
Research	14	25	5	13	5	10
Service[a]	2	3	2	2	2	2
Administration	8	5	8	5	8	4
Other[a]	3	4	2	2	2	3

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

Note: Nonrespondents were not included in calculations.

[a] There was a high nonresponse rate on these items.

in polytechnics and colleges, but in universities the total hours worked during vacations are much the same as during term.

It should be added that there are substantial disciplinary differences in each sector. In each sector, staff in the academic disciplines teach longer hours in term time than do those in the vocational subjects, and they are led by staff in the humanities, who teach substantially longer hours than all the rest. In the natural sciences, however, there are substantial numbers of staff whose term-time research effort is quite high. During vacations the humanities staff spend the most hours on research, followed by natural science in the universities and social science in the polytechnics. It could be said that staff in the humanities seem to fit best the stereotype of the English "don," leading a polarized existence devoted to intensive teaching during term and comparatively single-minded research in the vacations, while natural-science staff lead more balanced lives and social-science staff fall in between. (The lower teaching hours of natural-science staff no doubt partly depend on the substitution of laboratory work for face-to-face teaching; but they may also be a product of the much lower growth in demand for science-based courses in Britain, which has resulted—in the short term at least—in lower student–staff ratios.) It should be added, finally, that while both the research and teaching hours of staff in vocational subjects are generally lower, the latter are considerably more heavily involved in service and other activities.

One-quarter of all staff in polytechnics and colleges—but *only* one-quarter—are primarily interested in teaching, compared with virtually no one in the universities (table 10.16). On the other hand, only one-quarter of university staff, and virtually none from the other sectors, describe themselves as primarily interested in research (and note that 10 percent of university respondents hold research appointments). Thus the vast majority adhere to the unity of teaching and research in their personal preferences, even though their biases are in opposite directions, with almost three-quarters of university staff leaning to research and from two-thirds to three-quarters leaning to teaching elsewhere. There are, again, subject differences: in the universities the natural scientists lean most toward research, followed by staff in social science, science-based vocational subjects, humanities, and finally arts-based vocational subjects; whereas in the polytechnics natural science is the most teaching oriented—presumably because of the absence of research facilities and equipment, which gives staff less choice than their colleagues in other subjects.

But these tabulations refer, presumably, to fairly conventional definitions of research as opposed to wider views of scholarship (even if there must be some differences between the sectors in this regard). A question about the respondents' general "commitment" to their disciplines, their institutions, and departments revealed that the disciplines were the most important reference point for a large majority, followed by departments in second place, and leaving institutions a very poor third. If we take commitment to the discipline as a measure of scholarship in the widest sense, it is clear that there are few academics in any sector for whom it could be said that scholarship is not the primary concern of their work.

Table 10.16

PRIMARY INTERESTS IN TEACHING OR RESEARCH, BY INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY	POLYTECHNIC	COLLEGE
Primarily in teaching	5	22	24
Both, leaning to teaching	23	44	52
Both, leaning to research	49	30	21
Primarily in research	23	4	3

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

GENERAL JOB SATISFACTION

Academic Life and Status

The survey revealed a paradox that appears to be common to a number of very different higher education systems in the 1980s and 1990s, as is broadly confirmed by the full fourteen-country survey. On the one hand, the respondents make the positive statement, adhered to by most academics whatever their sector's level of research activity, that their field is creative and productive; and on the other, they express a sense of personal strain, the widespread agreement that the profession's respect is declining and its influence insubstantial, and a feeling shared by quite a number that this is a poor time to begin an academic career in their own field. And yet, as the table shows, very few regret their choice of career: indeed, almost half of all staff in each sector strongly disagreed that they would now choose a different career (table 10.17).

Evaluation of Institutional Resources

The respondents' evaluation of resources reflects the sharp differences between sectors, with polytechnics—which have undergone the most

Table 10.17

ATTITUDES TO ACADEMIC DISCIPLINE AND ACADEMIC CAREER, BY INSTITUTIONAL SECTOR

	PERCENTAGE AGREEING		
	UNIVERSITY	POLYTECHNIC	COLLEGE
This is an especially creative and productive time in my field.	66	54	60
My job is a source of considerable personal strain.	45	50	52
Respect for academics is declining.	73	70	73
This is a poor time to begin an academic career in my field.	45	37	35
I would not become an academic again.	19	19	23
	PERCENTAGE DISAGREEING		
	UNIVERSITY	POLYTECHNIC	COLLEGE
Academics are influential opinion leaders.	65	59	63

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

rapid expansion—apparently suffering most seriously from accommodation problems (classrooms and staff accommodation); while laboratories, equipment, computing, and secretarial support all show a predictable worsening as we move from universities to polytechnics to colleges (table 10.18). In some of these cases, however, and perhaps especially in the area of computing facilities, satisfaction is notably high: the United Kingdom has had for some time a rather well-resourced national computer purchasing policy for institutions. And in a few areas surprisingly little difference exists among the sectors: libraries, though quite well rated at

Table 10.18

EVALUATION OF INSTITUTIONAL RESOURCES, BY INSTITUTIONAL SECTOR (PERCENTAGE RESPONDING "EXCELLENT" OR "GOOD")

	UNIVERSITY	POLYTECHNIC	COLLEGE
Classrooms	39	18	27
Teaching technology	32	26	29
Laboratories	42	29	12
Equipment	42	13	8
Computer facilities	55	43	28
Library holdings	44	27	27
Staff accommodation	42	20	39
Secretarial support	38	24	24
Travel funds	15	16	10

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

Note: Nonresponses and "not applicable" responses were excluded.

universities, are not especially poorly rated elsewhere, even though library holdings in most colleges and many polytechnics are certainly not substantial enough to sustain advanced scholarship. The massive and consistent discontent with travel funds perhaps tells us as much about the high value placed on travel as one of the remaining perquisites of the academic profession as it does about the realities of the availability of funds—though there can be little doubt that travel funds have been an easy candidate for economies when funds are short.

Satisfaction with the Institution

The respondents' level of satisfaction with the general job situation shows quite a mixed picture: few staff in any sector are very satisfied (table 10.19). Two aspects, the courses that they teach and their relationships with colleagues, are rated highly positively across the sectors; and

Table 10.19

FACULTY SATISFACTION WITH ASPECTS OF THEIR JOB, BY INSTITUTIONAL SECTOR (PERCENTAGE RESPONDING "VERY SATISFIED" OR "SATISFIED")

	UNIVERSITY	POLYTECHNIC	COLLEGE
Courses taught	78	72	79
Relationships with colleagues	74	71	77
Job security	65	61	48
Promotion prospects	25	17	14
Opportunity to pursue your own ideas	75	55	53
Institution management	27	14	9
Job situation	53	44	40

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

university staff are also very satisfied with their opportunities to pursue their own ideas: polytechnic and college staff less so, but still broadly satisfied on average. While job security gets a fairly high rating (but understandably lower in the colleges), promotion prospects are condemned across the board, if slightly less (and reasonably so) in the universities. And institutional management is not highly rated: there is less, but still substantial, dissatisfaction in the universities, but particularly in the colleges dissatisfaction is very strong.

PERSONAL DEVELOPMENT

Appraisal

Formal schemes of staff appraisal have been fairly recently introduced into universities: they were a condition of the government-approved salary settlement of 1989. Polytechnics and colleges were also expected to introduce them, but there was more resistance from the professional trade union than in the university sector, and less insistence from government in the years preceding the survey. The experience of appraisal is nearly universal in universities (90 percent—those replying negatively are primarily research staff for whom appraisal is not a formal condition of employment), less common in colleges (73 percent), and least common in polytechnics (58 percent), where—compared with the colleges—management may be less powerful and the unions stronger. It should be added that it is clear from answers to other questions that respondents did not equate the "appraisal or evaluation" of teaching with the use of student feedback (although the latter is commonplace in the United Kingdom, and very strongly supported elsewhere in the questionnaire), but interpreted it, as intended, as participation in a formal appraisal scheme. Most such schemes are evidently managerial in structure, in that the appraisal is normally carried out by the head of department (especially in polytechnics and colleges), by departmental colleagues senior to the appraisee, or by other senior members of staff. The collegial mode of appraisal by status equals is relatively rare, even in the more collegial universities.

Starting with the core activities, for those staff who *are* regularly appraised, teaching is virtually always included, as is research in the universities (table 10.20). It is perhaps a measure of the increasing seriousness with which the polytechnics and colleges are taking their research role that large majorities of their staff, too, are appraised for their research as well as their teaching. Management and administrative activities are also on most appraisal agendas; and the remaining (service and "other") activities are presumably covered only for those who are involved in them. The general conclusion is clear: although most discussion (by government ministers, among others) of the necessity for appraisal described it as a means to guarantee good-quality teaching, leading many commentators—and critics—to predict that appraisal schemes would be confined largely to teaching activities, they generally range over the whole of academic life.

Table 10.20

ACTIVITIES COVERED BY APPRAISAL, BY INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY	POLYTECHNIC	COLLEGE
Teaching	92	95	99
Research	97	80	70
Service	29	39	38
Management/administration	76	80	79
Other	7	14	14

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

Note: The calculations present percentages of those who are appraised.

Training

In the case of school teachers, for whom formal training in pedagogy is required as part of their qualification, it would probably be true to say that the more academic and the less professional their qualifications, the higher their status. And the relatively high status of higher education staff has, arguably, been underlined by the fact that in the United Kingdom, as in many other countries, no pedagogic training has been required. While this is still formally the case, the growing political emphasis on the quality of teaching and the growing consumerism of students have combined to expose, as something close to insouciance, the implicit assumption of universities that anyone with a Ph.D.—or less—will by definition be a satisfactory teacher. The upshot, so far, seems to have been an increased emphasis within HEIs on "staff development"[39]—on-the-job training—rather than new induction programs, let alone changes to qualifications. The responses in table 10.21 suggest that this training may be better welcomed than might have been the case a few years ago:

Table 10.21

FACULTY RATING OF TRAINING FOR THEIR JOB, BY INSTITUTIONAL SECTOR (PERCENTAGE RESPONDING "VERY WELL TRAINED")

	UNIVERSITY	POLYTECHNIC	COLLEGE
For teaching	17	32	39
For research	28	14	12

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

respondents indicate surprisingly modest levels of confidence in the training that they have received for each of their key activities.

Taking teaching first, it should be noted that many college and some polytechnic staff do in fact hold qualifications for school or further education teaching, and that this probably accounts for much of the difference between them and university staff. But the figures do indicate a strong feeling among the staff at universities that they were inadequately prepared for their role as teachers; and there is a sizable proportion at the other institutions for whom the same can be said. It is more surprising to find so many, even in the universities, expressing doubts about—or less than total confidence in—their research training. There is a considerable debate in the United Kingdom at present, especially in the social sciences and the humanities, about the training role of the Ph.D.: the findings suggest that there is good reason for the debate.

ATTITUDES TO TEACHING

The habit of using student opinion—especially formal "feedback" mechanisms—to evaluate teaching is quite new to many of the old universities: to be precise, although individual teachers may have been collecting student feedback for many years, it is only since the recent institution of the universities' "Academic Audit" that it has become established as an expected or required collective practice. In the polytechnics and colleges, on the other hand, the CNAA (Council for National Academic Awards) regime, through its external regulation, always required institutions to use student evaluations as part of the process of course review. It was interesting, therefore, to discover that by 1992, when the survey was conducted, there was widespread agreement on the importance of using student opinion to evaluate teaching—tempered in each sector by equally general agreement on the need for better measurements of teaching quality. Only when asked about using teaching as the primary criterion for promotion was there serious disagreement between the sectors, with strong support in the colleges, a balance in favor in the polytechnics, and correspondingly strong dissent in the universities—unsurprisingly in view of their research emphasis.[40]

RESEARCH ACTIVITIES AND ATTITUDES TO RESEARCH

We showed earlier how working time was divided between research and other activities; we now turn to the outcomes of this activity. A very large majority in each sector describe themselves as engaged in a research project: 95 percent in universities and three-quarters of those replying in polytechnics and colleges.[41] Moreover, not only had three-quarters of those in universities had financial support for their research in the previous three years, so too had over half of those replying in the polytechnics and colleges (about two-fifths of their total staff in each case). However, there were big differences in the amount of funding they had received: it is clear that a high proportion of the research projects in the polytechnics and colleges receive minimal support.

The fact that there is a high quantity of publication in universities is unsurprising—and the levels would need detailed disciplinary and internationally comparative analysis to draw any firm conclusions (table 10.22). But it is striking how high the levels are in polytechnics and colleges: it is no surprise that they are lower than in the universities, given their different mission and greater teaching loads, but they are far from insignificant.

In the universities there is of course an overwhelming expectation of

Table 10.22

NUMBER OF RESEARCH PUBLICATIONS IN LAST THREE YEARS, BY INSTITUTIONAL SECTOR (PERCENTAGES)

	UNIVERSITY	POLYTECHNIC	COLLEGE
1 or more authored books	31	13	14
1 or more edited books	24	8	5
1 or more articles/chapters	84	44	45
6 or more articles/chapters	36	6	4
1 or more research reports	42	24	20
1 or more conference papers	76	45	39
6 or more conference papers	23	6	3
1 or more newspaper articles	33	28	37
1 or more artistic works	3	6	9

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

Note: All nonresponses were treated as zero.

research activity, which is reinforced by its being clearly seen as being required for promotion. It is perhaps surprising that two-thirds of polytechnic staff, and half of college staff as well, also now see "regular" research activity as a normal expectation (table 10.23). On the whole, however, this pressure is not seen as excessive: even in universities only one-third of staff agree at all that they feel constrained to do more research than they would like. Views on the effects on teaching are quite varied: despite the recent pressure in polytechnics, not many staff there feel that the pressure to publish is damaging the quality of teaching, and even in universities this is a minority view. But there is a widespread and strong feeling (undoubtedly based in reality—including the increasing numbers of applicants for a relatively fixed pool of funds) that funding is harder to come by than it was five years previously.

Table 10.23

FACULTY PERCEPTION OF RESEARCH REQUIREMENTS, BY INSTITUTIONAL SECTOR

	PERCENTAGE RESPONDING "STRONGLY AGREE" AND "AGREE"		
	UNIVERSITY	POLYTECHNIC	COLLEGE
Regular research activity is expected.	95	64	50
Successful research record is important for promotion.	93	63	41
I feel under pressure to do more research than I would like.	35	29	26
The pressure to publish reduces the quality of teaching at this institution.	45	25	19
	PERCENTAGE RESPONDING "STRONGLY DISAGREE" AND "DISAGREE"		
	UNIVERSITY	POLYTECHNIC	COLLEGE
Research funding is easier to get than five years ago.	66	58	55

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

MANAGEMENT AND DECISION MAKING

We saw earlier the widespread discontent with the quality of institutional management, especially in the colleges. Some of the reasons may perhaps be deduced from survey findings (table 10.24), which show the levels at which various management decisions are perceived to be taken. In some cases, the impression that colleges are particularly autocratic or centralized and universities especially collegial, with polytechnics occupying the middle ground, is confirmed (for example, in selecting heads of departments or in assigning teaching loads). But in most others (new academic appointments, academic promotions, financial decision making, approving degree schemes, and even selecting senior administrators) it turns out that while colleges are more centralized, there is little to choose between polytechnics and universities. And in one respect—setting admissions criteria—polytechnics are evidently more decentralized than universities. It is also apparent that there is a wide range of views about the reasonably objective question of centralization or decentralization: further analysis is needed to see whether this reflects differences between institutions within the same sector, as is entirely possible, or different perceptions of the same situation. (On the question of personal influence at various levels there is little difference between sectors.)

Further questions about institutional management and administration reveal a deep discontent in the college sector, but rather greater satisfaction elsewhere. There are, however, serious worries throughout about the competence of institutional leadership, doubts about communication and about being kept informed, and quite strong accusations of autocratic behavior: even in the universities, 60 percent agree that institutional management is autocratic.

ACCESS AND STUDENT QUALITY

One of the main findings of the classic 1960s study of the British academic profession was the widespread doubts and reservations held by academic staff about the wisdom of the last great expansion of student numbers.[42] There were considerable worries about the quality of new

Table 10.24

FACULTY PERCEPTION OF CENTRALIZATION OF GOVERNANCE, BY INSTITUTIONAL SECTOR (PERCENTAGES)

	CENTRALIZED 1	2	3	4	DECENTRALIZED 5	DON'T KNOW
SELECTING SENIOR ADMINISTRATORS						
University	78	5	2	1	1	13
Polytechnic	78	6	2	2	3	9
College	92	4	—	—	1	3
SELECTING NEW ACADEMIC STAFF						
University	11	12	22	24	25	5
Polytechnic	14	12	18	24	30	3
College	31	19	23	13	12	2
SELECTING HEADS OF DEPARTMENTS						
University	32	20	13	9	16	10
Polytechnic	56	20	10	4	5	5
College	69	19	5	2	2	4
DECISIONS ON ACADEMIC PROMOTIONS						
University	36	30	16	5	3	10
Polytechnic	35	23	16	9	8	8
College	57	24	7	6	2	4

(*continued*)

Table 10.24 (continued)

FACULTY PERCEPTION OF CENTRALIZATION OF GOVERNANCE, BY INSTITUTIONAL SECTOR (PERCENTAGES)

	CENTRALIZED 1	2	3	4	DECENTRALIZED 5	DON'T KNOW
FINANCIAL PRIORITIES						
University	52	17	11	6	5	9
Polytechnic	52	19	12	7	6	4
College	73	15	6	3	2	2
TEACHING LOADS						
University	9	10	14	19	40	8
Polytechnic	20	14	14	18	30	4
College	29	23	19	11	16	2
ADMISSIONS FOR UNDERGRADUATES						
University	18	14	16	15	25	13
Polytechnic	12	9	13	21	40	5
College	32	21	14	12	18	3
APPROVING DEGREE SCHEMES						
University	25	20	25	12	8	10
Polytechnic	29	21	26	11	9	4
College	47	26	16	5	3	4

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

students and strong expressions of support for holding the age participation rate at its then much lower rate. It is of great interest to see how the intervening years have affected these perceptions as Britain struggles, under much more difficult financial circumstances, through another period of massive expansion. There are still doubts about the quality of undergraduates,[43] especially in the polytechnic and college sectors, but these decline considerably in relation to taught postgraduates and even more in relation to research students (table 10.25). (The competition, not so much for admission as for funding of research students, is now extremely tough, and there is every reason to think that their quality is indeed very high by any criterion, relative or absolute.) As far as undergraduates are concerned, it is interesting that the universities, where expectations are undoubtedly much higher and staff have had relatively little experience with less-well-prepared students, show the most satisfaction with undergraduate quality: this suggests that staff in all three sectors are using common rather than different criteria of quality. On the succeeding question, which asked for a direct comparison with five years earlier, the balance was in general toward seeing student quality as worse rather than better, but not by a wide margin.

Turning to questions of access and expansion, the survey reveals an extremely strong commitment to the principle of universal access for the qualified, with only slightly greater reservations in the universities, but sharp disagreements on the much more challenging question of whether entrance requirements should be modified or waived for social reasons. Even here, however, the survey found overall support for the principle, even in the universities, but considerable polarization within both the university and polytechnic sectors. Only in the colleges is there very strong support. This question, however, needs further analysis by discipline, as considerable differences exist in practice between those disciplines that do and those that do not require a high degree of numeracy.[44]

The respondents were questioned about the percentage of young people who are believed capable of achieving the "standard" qualifications for higher education entry and about the percentage believed to be deserving of participation (table 10.26). Any reservations in the answers

Table 10.25

FACULTY RATING OF STUDENTS, BY INSTITUTIONAL SECTOR (PERCENTAGE RESPONDING "EXCELLENT" OR "GOOD")

	UNIVERSITY	POLYTECHNIC	COLLEGE
Undergraduate	59	37	32
Postgraduate (taught)	61	59	50
Postgraduate (research)	69	65	54

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

to previous questions (e.g., on waiving entrance requirements for the disadvantaged) are set in context by these answers, especially on the question of the participation rate. The difference between these two percentages implies, incidentally, that the "standard" qualifications, until recently widely regarded as a "gold standard" on which the whole quality of higher education depends, are now quite widely regarded as an unnecessary barrier to participation. Until the late 1980s, the English participation rate had stood for many years at less than 15 percent: it is remarkable that by 1992 only 10 percent of polytechnic and college staff, and, especially, only 15 percent of university staff, thought that this was a reasonable proportion. At the time of the survey, the current English participation rate was around 20 percent, and a substantial majority in each sector believed that it should be higher—far higher in the case of the polytechnics and colleges, where over half of all respondents thought that it should be over 40 percent. It does seem that the commitment to wider access is now firmly rooted among most academic staff.

CONCLUSION

Dramatic changes were taking place in British higher education at the time of the Carnegie survey, and some inconsistency was noted in the responses of the academic profession to these changes. We found, however,

Table 10.26

FACULTY ASSESSMENT OF STUDENT CAPABILITY TO ACHIEVE "STANDARD" ENTRY QUALIFICATIONS AND OPINION ON HOW MANY SHOULD PARTICIPATE IN HIGHER EDUCATION, BY INSTITUTIONAL SECTOR (PERCENTAGE OF FACULTY)

	UNIVERSITY		POLYTECHNIC		COLLEGE	
	QUALIFIED	SHOULD PARTICIPATE	QUALIFIED	SHOULD PARTICIPATE	QUALIFIED	SHOULD PARTICIPATE
PERCENTAGE OF STUDENTS						
1–10	16	10	13	6	11	4
11–15	8	5	6	4	6	5
16–20	16	13	17	9	14	6
21–25	11	10	10	5	8	8
26–30	14	13	12	12	16	13
31–40	14	15	13	12	16	14
41+	20	35	30	52	29	50

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of England).

that a very large majority of members of the profession are now committed to the *principle* of mass higher education—in sharp contrast to faculty attitudes of thirty years ago. At the same time, the respondents' more detailed views on many aspects of their present work situation could be interpreted to mean that the *consequences* of mass higher education have not yet been fully accepted. It is true that there is a debate to be held on how far the present harsh conditions of the old and new universities can reasonably be attributed to deliberate policies of a government that is notably hostile to the older professions—rather than to the inevitable consequences of a major structural change. But it is hard to resist some suspicion that the profession, viewed collectively, may be trying to support mass access while still seeking to retain some of the conditions of a disappearing elite system.

The second general conclusion to be drawn from these tabulations concerns the apparent paradox that, while some aspects of academic work in England may well merit the labels of "deprofessionalization" or even "proletarianization" that critics have given them, there is also a strong sense of continuing professionalism. Academic staff give every impression of enjoying and valuing many aspects of their work, and of caring about teaching and students. They are committed to their disciplines and to their research—even in those sectors without a research tradition. It is hard to resist the conclusion that ministerial pronouncements, with their often harsh criticisms of professional standards, are overdone; and that both government policymakers and those institutional leaders whose comments and policies so obviously indicate their lack of trust in the profession may be undermining exactly what they purport to value. If so, there is a considerable and unhappy irony here.

We have concerned ourselves here most extensively with internal diversity and sectoral differences. While plenty of these have been apparent, it is arguable that the most striking conclusion of this analysis is the relatively small size of many of these differences. In particular, it is noteworthy that the polytechnics, so soon to become universities in name, were already approaching the older universities' attitudes and preferences in many respects—especially in their commitment to research and publication. It is important, of course, not to exaggerate the boundary between the sectors: in particular, we know that most of the staff of the polytechnics are the graduates of universities and therefore are likely to have acquired common values and orientations toward academic work. But the convergence is nonetheless intriguing. As policymakers are only too well aware, the merger of the two sectors could easily mean what used to be attacked as "academic drift"—the assimilation of the polytechnics to research universities' style and standards. It is not hard to foresee the extra demands on resources, and the loss of a distinctive access-oriented mission, that this might entail. The survey provides no evidence for the weakening of a commitment to access among the staff. But it provides us with few clues as to the kind of research culture that might emerge among these institutions with a growing commitment to research but few of the material or cultural advantages that the old universities have enjoyed.

The colleges of higher education present a different kind of enigma. There is evidence of some of the weaknesses as well as the strengths that small and specialist institutions might be expected to share. Notable among the weaknesses are their age structure and their relatively small research base. The common staff perception of their leadership as autocratic may reflect a certain kind of strategic flexibility, but it is also a symptom of vulnerability to low morale and alienation. It remains to be seen whether the particular niche to which many of the smaller colleges are committed will survive in the world of mass higher education.

Finally, the universities still seem to display a combination of high research achievement and orientation, allied to a strong commitment to undergraduate teaching. However, in certain subjects, notably the humanities, the question must be asked how long the strength of their teaching commitment, and the teaching loads that are now being imposed, will continue to be compatible with sustaining a genuinely international research position. Other signs of tension are visible as well. Until recently it has been the polytechnics and colleges that have made the major progress in widening access, but the universities' increasing interest in access, while welcome and commendable in itself, may well make further demands on time and resources, both of which are so clearly in short supply. If we add to this the other areas of discontent that the survey identified, notably the experience of reduced status and the gradual imposition of more managerial structures, the future of the universities looks distinctly uneasy.

NOTE ON THE SURVEY

The methodology is briefly described in the "Methodological Notes" in appendix A to this book. Sixteen institutions in England were surveyed in the 1992 summer term: eight university-sector institutions ranging from a very large university to a very small specialist college within the federal University of London; three polytechnics (all polytechnics are large); and five colleges of higher education of widely varying sizes. The survey used the institutions' help to obtain up-to-date staff lists from a variety of sources (payroll lists, telephone directories, or prospectuses and catalogues), and also to distribute the questionnaires through their internal mailing systems. Questionnaires were returned directly to the survey office by reply-paid mail. A total of 1,946 usable responses were received, of which 22 had removed the single-letter code identifying their institution for analytic purposes. The results reported here are almost all based on the 1,924 cases that can be assigned to a specific sector of the system. The survey achieved a response rate of well over 50 percent after two mailings. Response rates appeared to vary considerably between institutions, and in general were higher in the universities and lower in the polytechnics and colleges. It was decided not to weight the responses in order to compensate for this apparent bias, for three reasons: (1) it was suspected that most of the 22 responses without an institutional code came from the nonuniversity sector, slightly reducing the bias; (2) the published figures from which the first-stage sample was drawn are out of date and evidently unreliable, and would not provide a reliable base for reweighting; and (3) the second-stage sampling was also less than reliable since some staff's status, especially in the nonuniversity sector, was unclear from the lists provided. In conclusion, it seems likely that while the achieved responses may not fully match the total academic *staff* employed in higher education, they are a fair representation of those who can legitimately be called members of the academic *profession*.

Jürgen Enders and Ulrich Teichler

THE ACADEMIC PROFESSION IN GERMANY

THE CHARACTERISTICS of the academic profession in any given country cannot be described and explained without referring to the goals and functions, institutional patterns, and administration of higher education. Therefore, a brief overview of the higher education system in Germany will be provided.[1] All universities in the Federal Republic of Germany share a strong orientation toward scientific and scholarly research and teaching. The Humboldtian principle of the unity of research and teaching is expressed by the fact that university professors are expected to spend an equal proportion of their working time on teaching and research. University professorships that are solely or primarily either research or teaching positions do not exist, except for a very few cases, and teaching loads are more or less standardized for all university professors. Public funding for the universities is distributed within the institutions in a way that provides the opportunity for each professor to conduct research.

OVERVIEW

German universities are assumed to be fairly homogeneous, as far as the quality of teaching and research is concerned. This is reflected, for example, in the fact that students who qualify for admission may enroll at the institution of their choice and that, if a *numerus clausus* is employed, they are selected by means of a national unified admissions procedure. In addition, students are free to move from one university to another at any time during their course of study. While allowing leeway for diverse profiles, national curricular standards are designed to preserve a commonalty of course programs, to ease student mobility, and to ensure that degrees in respective fields are more or less similar in substance and quality. Universities generally have equal funding levels—according to student numbers—with some variation by discipline and also with allowances for the specific needs of individual institutions.

Most German institutions of higher education are public, and higher education is financed almost exclusively by public resources. Students do not pay tuition fees. The regular institutional costs are borne by the governments of the *Länder*, which are in charge of legal regulation and administrative supervision. The federal government covers half (or even more) of the construction costs in higher education, special research promotion schemes, and student aid. It also shares responsibility with the *Länder* governments for national higher education legislation and educational planning. Furthermore, regulations regarding academic staff are part of national legislation, and civil service procedures and examinations in medicine and law are standardized nationally.

The substance and structure of courses of study at German institutions of higher education are to a certain degree linked to professional fields. The choice of a subject usually determines the area in which a student can expect to find subsequent employment. In fields such as medicine, law, and teacher training, no university degree is awarded as a rule; rather, students must pass a state examination jointly assessed by university professors, professional experts, and, in some cases, state representatives. In other fields that may lead to related professions, national standards ensure a certain degree of homogeneity and basic professional orientation in the *Diplom* courses and examinations. Only in some areas, notably in the humanities, do universities award a *Magister* degree that is not intended to prepare students for subsequent professional activities.

The institutional pattern of the German higher education system can best be described as a dual structure. Universities are in charge of both teaching and research. All regular university degree programs require four or more years of study and lead to degrees equivalent to a master's degree. As a rule, all departments at all German universities have the right to grant doctoral degrees as well as the *Habilitation*—i.e., the advanced academic degrees that are the prerequisite for the position of university professor. Most German universities encompass a broad range of disciplines.

The *Fachhochschulen* were established in the 1970s as a second institutional type, with the intention of providing a more practically and vocationally oriented option of study than is customary in the majority of fields at universities. The main subjects offered at *Fachhochschulen* are engineering, business administration, social work, and public administration. The programs usually comprise three years of course work, and generally last four years altogether (i.e., including internships and examination periods). The *Diplom* degree (supplemented by an *FH*, for *Fachhochschule*) is considered the equivalent of a bachelor's degree in the international context. As will be discussed later, the teaching staff are expected to be both academically and professionally qualified. The teaching load is more than twice as high as that at universities. Consequently, while professors at *Fachhochschulen* may undertake research, they are not required to do so as part of their professional responsibilities. *Fachhochschulen* do not award advanced degrees, nor are they in charge of the training of their junior staff.

Some specialized universities, notably in the areas of teacher training and theology, do not have the right to award the *Habilitation*. Fine arts colleges or departments, as a rule, do not grant doctoral degrees. *Gesamthochschulen* are universities, in legal terms, that combine the educational functions of universities and *Fachhochschulen*.

Academic Careers, Assignments, and Rights

At the heart of the German academic profession are the full professors, although only about one-fifth of academic staff at universities hold the rank of professor. Traditionally, upon receiving an offer, the prospective professor would negotiate salary, staff, and material resources directly with the government. In the last three decades, the authority for determining faculty resources as well as the work assignments of junior staff has in part been transferred to the university or the department. Full professors (chair holders), who traditionally dominated all academic decision making, still constitute a majority on most decision-making committees and councils in German universities. Junior academics in Germany continue to have less autonomy in their work than do junior staff in many other countries. They are not considered to be a regular part of the academic profession.[2] For example, the key professional associations (*Hochschulverband* in the university sector and *Hochschullehrerbund* in the *Fachhochschule* sector) accept only professors as members. Junior staff are usually called either *Mittelbau* (intermediate layer) or *Wissenschaftlicher Nachwuchs* (academic recruits).

If a professorship becomes vacant, it is announced publicly. As a rule, only outside candidates are considered. A search committee, made up of faculty from the department and perhaps from other departments and universities, selects three candidates to be confirmed by the department, possibly with some input from the university senate and the president or rector. The government of the respective *Land* makes the final decision, usually picking the top candidate on the list, though it may also offer the position to one of the other two candidates or reject the list entirely and call for a new search.

The full range of junior staff positions and career patterns cannot be described in this short overview, because various types of positions coexist at each stage and because legislation varies somewhat between *Länder* and is substantially revamped about every ten years. However, we can describe typical career paths as well as briefly note the variety of options.[3] A university graduate having passed the *Staatsexamen* with a *Diplom* or a *Magister*, usually in his or her mid to late twenties, might spend the first stage of an academic career as a *Doktorand* in various ways: as a doctoral candidate being employed in other institutions or being supported by a doctoral fellowship; as a member of the academic support staff (*Wissenschaftliche Hilfskraft*), working at most half time; or as a research staff member regularly employed, funded by external research grants or by the university. In most cases, no regular course programs are provided for doctoral candidates; rather, supervision is on an individual basis, or doctoral colloquia are offered by individual professors. In contrast to the other countries in this study, German universities employ as regular staff large numbers of persons without a doctoral degree.[4]

After about five years spent fully or partly working on a dissertation and after being awarded the doctor's degree—the Dr. phil., Dr. rer. nat., etc.—the individual reaches the second-career stage, which lasts another five or more years. The typical position at this stage is that of an assistant, lasting six years, though more academics at this career stage are employed as advanced research staff, and sometimes as lecturers. The teaching load of an assistant is less than half that of professors, whereas research staff are not obliged to teach but might be engaged in the same amount of teaching as are part-time lecturers. Regular lecturers have a higher teaching load than do professors. Their positions are considered to be terminal, intermediate academic career positions—for example, lectureships in the area of foreign-language teaching.

Only after being awarded the *Habilitation* (which is supposed to be based on at least five years of postdoctoral research) is an academic considered to be an independent teacher, examiner, and researcher. There are also post-*Habilitation*, nonprofessorial positions and fellowships, as well as other activities that prospective academics may engage in while waiting for an offer of a university professorship. These post-*Habilitation* positions and fellowships, however, are too few in number to serve as a regular career stage. Besides this career ladder, a considerable number of academics are employed at German universities as researchers, language teachers, or in other positions not viewed as career-track. Further, a substantial number of persons are employed by universities on contract money.

The university professor is appointed—on average at about forty years of age—to a distinct disciplinary area. Freedom of research and scholarship is guaranteed by the German federal constitution. Curricular coordination at German universities is less pronounced than is the case in many other countries. Salary increases beyond regular raises, substantial resource allocation, and other significant awards are given only when a professor receives an outside offer for a professorship at another university or in another, equivalent position. This is closely linked to the traditionally cosmopolitan, discipline-based rather than institutional, attachment of the German professor. Ideally speaking, the university does not lend its prestige to the professor, rather the mobile professor brings his or her prestige to the receiving institution.

To be appointed at a *Fachhochschule*, a person must have a doctoral degree and five years of postdoctoral professional experience. Of these five years, at least three years should be spent in a position outside higher education and research in the respective professional area. *Fachhochschule* professors can be promoted internally. It should be noted that only a few nonprofessorial academic positions are available at *Fachhochschulen* for administration, teaching, or research.

The typical weekly teaching load for university professors is eight hours (with forty-five minutes per class); for university assistants the load is three hours, and for *Fachhochschule* professors eighteen hours. The salary of *Fachhochschule* professors is about 15 percent lower than that of professors at universities. Regularly employed junior staff are paid about one-half to two-thirds as much as full professors of the same age group.

A Quantitative Overview

The total number of institutions of higher education in western Germany (the former Federal Republic of Germany and West Berlin, prior to unification in 1990) was 251 in 1992. There were 95 university-type institutions, 32 fine arts colleges, and 124 *Fachhochschulen* (including 24 special-status institutions for public administration). The total number of higher education institutions in unified Germany was 318 (122, 43, and 153, respectively).

The total number of students at western German institutions of higher education was almost 1.7 million in 1992. Among entering students, 32 percent were enrolled at *Fachhochschulen*. Altogether, 43 percent of entering students were women. In 1991 (the most recent year for which data are available), 112,939 academic staff were employed at western German institutions of higher education. In addition, there were 7,067 part-time professors (mostly honorary professors not remunerated at all), 34,660 (honorarium-based or unpaid) lecturers, and 16,360 academic support staff (*Wissenschaftliche Hilfskräfte*).

The student–academic staff ratio (not comprising part-time staff) in 1991 was about 12:1 at universities and fine arts colleges and 34:1 at *Fachhochschulen*. Among academic staff at universities and fine arts colleges, 21 percent were professors (21,393 in absolute figures, as compared to 80,124 of other academic staff). At *Fachhochschulen*, the respective figure was 84 percent (9,588 professors and 1,835 other academic staff).[5] According to the survey, 22 percent of junior staff and 6 percent of university professors were women. Women comprised 9 percent of academic staff at *Fachhochschulen*.

The Survey

The German version of the questionnaire consists of 105 questions, including about seven hundred variables, and was twenty-eight printed pages in length. It addresses in greater detail academics' activities and workload than does the master questionnaire of the international survey, although the German questionnaire is less concerned with general views on higher education and society. About ten thousand questionnaires were mailed to all academic staff in sixty departments at eighteen institutions of higher education (five universities, three technical universities, two comprehensive universities, two fine arts colleges, and six *Fachhochschulen*). To select a representative group of departments and institutions required looking at key aspects such as size of institution, region, and major fields. Addresses were obtained from catalogues for the winter semester 1991/1992.

The questionnaires were mailed in early May 1992. A reminder letter and another copy of the questionnaire were mailed six weeks later. Altogether, 2,801 academics responded, for a response rate of 28 percent.[6] This is clearly a lower rate than expected, even taking into account the turnover of academic staff between the time the catalogues were put together and distribution of the questionnaires, as well as the fact that the survey addresses issues of teaching that many junior researchers, doctors, and staff at university hospitals might not consider applicable to their situations.[7] The low response rate is all the more noteworthy, because key state agencies, major advisory bodies, and professional organizations had expressed their support for the study in an accompanying cover letter. However, in general, most academic staff are not very supportive of surveys of this kind.

As regards the profile of responses, we note some underrepresentation of faculty members in the field of medicine and some overrepresentation of academic staff in the humanities and education. The responses are representative, however, for type and age of institution. The survey included only scholars at institutions of higher education in western Germany (the Federal Republic of Germany, according to the 1989 borders, and West Berlin). Eastern Germany (the former German Democratic Republic) was not included, because substantial institutional restructuring and staff reshuffling were under way at the time the survey was being conducted.[8]

The analysis in this chapter does not cover all thematic areas of the questionnaire. Rather, it focuses on issues of employment and career; on the allocation of time and major activities; on working conditions and job satisfaction; on various aspects of teaching, research, and services; and on selected views on the relationship between higher education and society. Issues of higher education administration and policy were deliberately excluded because analysis of the academics' views would require more extensive explanation of the relevant conditions than could fit within the scope of this chapter.[9]

The respondents are divided into three categories throughout: university professors (25 percent of all respondents); junior academic staff at universities (66 percent); as well as *Fachhochschule* professors, including the small number of other academic staff at these institutions (9 percent). In some cases, reference will also be made to differences between junior staff holding a doctoral degree and those not (yet) holding one. Each group comprises 33 percent of all German academics surveyed.

The three groups differ so clearly in working conditions and professional responsibilities that references to the total number of respondents would in most cases be misleading. Common elements can be observed only in their views regarding higher education and society. On the basis of the international data, academics at German universities are comparable to academics at all Swedish and Dutch universities, at "old" British universities (excluding the polytechnics), as well as at U.S. and Japanese research universities. Academics at *Fachhochschulen* are comparable to those at other U.S. and Japanese universities, at Swedish university colleges, British polytechnics, and Dutch *hogescholen* or *hoger beroepsonderwijs (HBO)*.

EMPLOYMENT AND CAREER

Professional Experience and Mobility

At the time the survey was conducted, German professors had been employed for twenty-four years, on average, at institutions of higher education—among these, two-thirds for more than twenty years. *Fachhochschule* professors had been employed on average for sixteen years—almost one-third for more than twenty years. In contrast, junior staff had been employed on average for seven years. Whereas 59 percent of junior staff had worked at most for five years at institutions of higher education, 7 percent had worked for even more than twenty years. As noted earlier, a substantial number of intermediate-rank positions for research, as well as some for teaching, are permanent and not part of an academic career track.

Fachhochschule professors have spent more than one-third of their careers outside the higher education institutions at which they are currently employed, as shown in table 11.1. As professional experience outside higher education and research is an entry requirement for a professorship in a *Fachhochschule*, it is not surprising that 89 percent of *Fachhochschule* professors report such experience. But 54 percent of German university professors had also been professionally active outside higher education; this was true of three-quarters or more of university professors in education, engineering, fine arts, and law. In fact, the majority of respondents maintain contact with their former areas of professional activity, and most of them consider these contacts to be useful for their teaching, research, and service activities.

Seventy-eight percent of German university professors have been professionally affiliated with two or more universities in the course of their careers. Prior to becoming a professor, the majority of the remaining 22 percent probably spent most of their professional lives outside higher

Table 11.1

PROFESSIONAL EXPERIENCE (MEAN YEARS)

	UNIVERSITY PROFESSORS	*FACHHOCHSCHULE* PROFESSORS
At this institution	16.3	12.1
At other higher education institutions	7.3	3.4
Outside higher education	3.8	8.3
Total	27.4	23.8
(N)	(681)	(242)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

education. Among *Fachhochschule* professors, 59 percent were active at other institutions of higher education (table 11.2); and although further details of career paths were not sought, we may assume that most of them were junior staff at universities for some period of time—few move from one *Fachhochschule* to another.

Job Security and Income

As in other countries, most senior academics at both types of higher education institutions in Germany are permanently employed, whereas only a minority of junior academic staff at universities hold permanent positions. Seventeen percent of those with a doctoral degree and 2 percent of those (as yet) without a doctorate hold civil service positions, which guarantee lifetime employment. A further 16 and 6 percent, respectively, have indefinite contracts and can be discharged only under certain circumstances. The remaining 62 and 32 percent, respectively, are employed for fixed periods only or under other contractual arrangements. As will be discussed below, the lack of job security is one of the most pressing concerns of junior staff at German universities.

Table 11.2

NUMBER OF INSTITUTIONS OF HIGHER EDUCATION AT WHICH GERMAN ACADEMICS HELD REGULAR ACADEMIC APPOINTMENTS (PERCENTAGES)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
NUMBER OF INSTITUTIONS				
1	22	67	41	53
2	32	22	42	27
3	24	7	15	12
More than 3	22	4	3	9
Total	100	100	100	100
(N)	(670)	(1,774)	(232)	(2,676)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

About one-fifth of professors and junior staff at German universities in the sample have additional outside remunerated activities, whereas additional academic remunerated activities dominate in the case of university professors. The proportion of *Fachhochschule* professors engaged in additional remunerated activities is about twice as high; again, academic activities prevailed. The income generated thereby comprises on average less than 10 percent of the total income of those reporting additional remunerated activities (table 11.3). Thirty-four percent of university professors report an annual gross income (salary and additional income) of more than DM 120,000 (about $75,000). As most of them are civil servants, the nonvisible benefits such as pensions and allowances add up to more than 30 percent. Although salary scales are identical for all fields, significant variations exist in bargaining power as well as in opportunities for remunerative activities, depending on field of study. Thus, while 79 percent of university professors in economic fields, 63 percent in law, and 50 percent in engineering and medicine belong to this income bracket (more than DM 120,000), the respective proportion is only 18 percent in education and 21 percent in the humanities.

While the mean income of university professors might be somewhat higher than DM 120,000 in the year the survey was conducted, the respective figure is about DM 110,000 for professors at *Fachhochschulen*. Fifteen percent of the latter report a total income of more than DM 120,000. Full-time junior staff earn on average DM 70,000, while most part-time junior staff (altogether 21 percent of the academic junior staff at German universities surveyed) earn less than DM 40,000. One has to take into account the fact that the majority of junior staff are regular employees (not civil servants) and thus receive a moderately higher gross salary but considerably less in net income.

Satisfaction with Remuneration and Employment Conditions

Asked to assess the remuneration they receive for their main employment, almost two-thirds of German university professors express satisfaction. The respective proportion was higher only among university professors in Hong Kong and the Netherlands. Among German university professors,

Table 11.3

ADDITIONAL PAID ACTIVITIES AND INCOME (PERCENTAGES)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
Academic activities	12	8	21	10
Nonacademic activities	6	8	14	8
Academic and nonacademic	3	1	5	2
None	79	82	60	80
Total	100	100	100	100
Additional income as a percentage of total income	9	5	12	7
(N)	(681)	(1,860)	(239)	(2,780)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

the number expressing satisfaction with their income ranges from 79 percent in the fine arts to 61 percent in economic fields, with the latter group reporting the highest income. Obviously, however, professors in economic fields do not consider themselves well paid as compared to economists in other employment sectors.

As one might expect, the proportion of junior academic staff expressing satisfaction with their remuneration was lower (44 percent) than that of university professors, notably among part-time junior staff. Again, however, the proportion of those satisfied with their income level turns out to be high when compared with the other countries in the survey.

German professors at *Fachhochschulen* least frequently express satisfaction with their income (35 percent). This is in contrast to other aspects of their employment and work, regarding which they are almost as satisfied as are university professors. Many *Fachhochschule* professors consider the shift toward an academic career as affording them increased independence, interesting work, job security, and to some extent status as compensation for moderate pay.

In response to a question about being satisfied with various aspects of their jobs, junior staff at German universities differ most clearly from senior staff at universities and from academic staff at *Fachhochschulen* in expressing less satisfaction regarding job security. In this respect, the ratings by German junior staff are more negative than those given by junior staff in all highly industrialized countries included in the survey (3.9 on average of a scale from 1 = "very satisfied" to 5 = "very dissatisfied").

ACADEMIC WORK

Weekly Work Hours

Questions about workload and allocation of time have been of special interest in many studies on the academic profession. Academics are among those professionals who enjoy extraordinary freedom in deciding how their time is spent, and many are willing to work much more than their regular work schedules require. On the other hand, academics do complain about job requirements that force them to spend time in ways they do not consider desirable or appropriate; they also complain that it is difficult for them to keep a balance between the different functions. Surveys in various countries show that academics would prefer to spend more time on research and less time on administration than they actually do.

According to the respondents' estimates, university professors work fifty-three hours per week when classes are in session and forty-nine hours when classes are not in session. This corresponds to fifty-one hours on average throughout the year, if we calculate seven months of class lecture (*Vorlesungszeit*), four other working months (*vorlesungsfreie Zeit*), and one month vacation. Professors therefore often work overtime in order to complete the aspects of their jobs that go beyond the immediate needs of daily affairs (table 11.4). Junior staff members at universities work on average forty-five hours per week. Full-time junior staff work on average forty-seven hours and part-time junior staff thirty-nine hours per week. This suggests that part-time staff spend more time over and above the contractual amount of time on professional activities in comparison to full-time staff—in part due to the fact that the former, either voluntarily or involuntarily, have accepted part-time employment, combined with work on a doctoral thesis or *Habilitation*. Finally, academic staff at *Fachhochschulen* report forty-six hours of work when classes are in session and only thirty-three hours when classes are not in session. If we calculate eight months of lectures and three additional working months, the average workload is forty-three hours per week or only a few hours more than the typical contractual workload in Germany.[10] It should be noted that *Fachhochschule* professors not involved in research report a relatively low number of working hours.

Allocation of Time

Asked about their major functions, German university professors report that they spend 43 percent of their time on teaching and 29 percent on research when classes are in session.

Table 11.4

TOTAL WORKING HOURS PER WEEK (MEAN)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
When classes are in session	53	45	46	47
When classes are not in session	49	44	33	44
Throughout the year	51	45	43	46
(N)	(587)	(1,646)	(200)	(2,433)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

At first glance, these data might suggest, as German university professors frequently claim, that research at universities is endangered by the student–teacher ratio, which has grown over the last two decades, and by the accompanying pressures to neglect research in order to fulfill the immediate needs of teaching—giving examinations, providing guidance, etc. However, a survey undertaken in 1976/1977 reports that German university professors spent only an estimated 23 percent of their time on research. In spite of the increasing number of students and the unchanging number of academic staff positions, similar surveys show that university professors in subsequent years spent more time on research: 27 percent in 1983/1984 and 28 percent in 1990/1991.[11]

It should be noted, in addition, that earlier German surveys asked academics for their work schedules during the lecture period only. In contrast, this survey also takes into account the part of the year when classes are not in session (table 11.5). In calculating activities throughout the year, we conclude that German university professors spend slightly more time on research than on teaching. In comparison internationally, we find that the proportion of time spent on research by German university professors is about the same as that spent by their Swedish and British colleagues but higher than that of their Dutch colleagues. Professors and associate professors at Japanese and U.S. research universities, however, allocate higher proportions of their time to research.

It should be noted that only a small number of junior staff are expected to focus solely on teaching. There are more positions established exclusively or primarily for research purposes. The junior assistantship positions, which are considered to be core intermediate university positions, prepare their holders for future professorial tasks, and the assistants' teaching load is lower than that for senior positions. On average, junior staff at universities report only six hours of teaching—clearly less than the nine hours reported by university professors. This differs from many other countries included in this survey, in which the teaching load for junior staff equals or even exceeds that of senior staff.

As junior staff in Germany teach smaller classes on average and are responsible for fewer examinations (the same holds true for junior staff in many other countries), they have substantially more time available for

Table 11.5

PERCENTAGE OF WORKING TIME SPENT ON MAJOR FUNCTIONS (MEAN)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
WHEN CLASSES ARE IN SESSION				
Teaching	43	26	69	33
Research	29	49	12	41
Administration	16	9	12	11
Service	8	14	6	12
Other	5	2	2	3
WHEN CLASSES ARE OUT OF SESSION				
Teaching	20	12	44	17
Research	53	61	33	57
Administration	12	8	9	9
Service	9	15	11	13
Other	7	3	4	4
THROUGHOUT THE YEAR				
Teaching	34	22	62	28
Research	37	53	17	46
Administration	14	9	12	10
Service	8	14	7	12
Other	6	2	2	3
(N)	(587)	(1,646)	(200)	(2,433)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

research. Actually, over the course of a year junior staff at German universities spend only 22 percent of their time on teaching and 53 percent on research-related activities.

Professors at *Fachhochschulen* are expected to teach eighteen hours per week; in fact, in this survey they report teaching eighteen hours per week, on average—twice as much as German university professors. Therefore, as a matter of course, they have to spend a much higher proportion of their time on teaching. What is most unexpected, therefore, is that 17 percent of *Fachhochschule* professors' time is spent on research, although this is only a voluntary component of their assignment. This proportion matches that of academic staff at British polytechnics—institutions upgraded to universities in 1992 and explicitly expected to perform a substantial research function.

German academics spend, according to this survey, about one-quarter of their time on activities other than teaching or research. German university professors estimate that they spend 14 percent of their work time on administration. Given that German professors often complain about the extent of their administrative duties, it is worth noting that they spend a lower proportion of their time on such matters than do their Dutch, Swedish, and notably their British colleagues.

Asking academics to estimate the time spent on teaching, research, services, and administration might evoke artificial results because many academic activities are not clearly linked to any single function. Therefore, German academics were asked to estimate their expenditures of time with respect to a list of nineteen categories of academic activities (table 11.6).

According to the responses, German university professors allocate almost one-fifth of their time to activities that may serve both teaching and research: 12 percent to reading literature, 5 percent to professional discussions, and 3 percent to attending academic conferences. Junior university staff also spend 20 percent of their time, and professors at *Fachhochschulen* 18 percent, on these three activities. If we compare the answers to the two questions, we might conclude that senior and junior staff at universities consider more than three-quarters of these activities as serving research, whereas professors at *Fachhochschulen* consider half of these activities as serving the teaching function.

Table 11.6

PERCENTAGE OF TIME SPENT ON VARIOUS ACADEMIC ACTIVITIES (MEAN)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
Reading literature	12	12	13	12
Discussions with other academics	5	6	3	6
Conference participation	3	2	2	2
Participation in academic, professional, and governing organizations	2	1	1	1
Evaluation and advising activities	4	2	4	3
Daily organizational tasks	6	9	5	8
Supervisory/chairing, and administrative tasks	6	4	5	5
Participation in committee work, study groups, etc.	3	1	3	2
Preparation of research projects	4	4	1	4
Participation in ongoing research projects	9	22	3	17
Work on academic publications	10	8	3	8
Course preparation and follow-up	11	7	18	9

(*continued*)

Table 11.6 (continued)

PERCENTAGE OF TIME SPENT ON VARIOUS ACADEMIC ACTIVITIES (MEAN)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
Conducting classes	9	5	24	8
Overseeing exam preparation and doctoral students		4	5	4
Office hours/advising	2	2	3	2
Tests	3	1	4	2
Social activities, social contacts, in professional context	2	2	1	2
Teaching outside of official course times	2	1	1	1
Academic service for the community	1	2	1	2
Other	2	5	1	4
Total	100	100	100	100
(N)	(573)	(1,684)	(203)	(2,460)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

Individual Preferences for Teaching and Research

Asked to state their own interests and preferences, almost three-quarters of German academics appear to be interested in both teaching and research. Only 26 percent see their interests lying primarily in either teaching or research. Naturally, these statements differ significantly according to the three staff and institution categories. German university professors lean more often toward research than toward teaching (table 11.7). Surprisingly, the proportion of respondents clearly preferring teaching is higher among German university professors (35 percent) than among their colleagues at Swedish (27 percent), British (25 percent), and Dutch universities (22 percent). Junior staff at German universities express a stronger preference for research than do senior staff. Notably, a higher proportion of junior staff expresses a dominant interest in research. The same holds true for junior academic staff in the other European countries surveyed. As one might expect, most academics at *Fachhochschulen* put the emphasis on teaching. The proportion of those leaning toward teaching or being primarily interested in teaching is 78 percent. This proportion is equally high among Dutch *HBO* staff (82 percent), but clearly higher than that among academics at British polytechnics (70 percent) and at Swedish university colleges (58 percent).

We note that whereas the number of teaching hours per week varies only to a limited extent, the overall time spent on teaching and teaching-related activities differs dramatically according to an academic's orientation (table 11.8). Thus, for each hour of teaching, German university professors who are strongly research oriented spend about 1½ hours on other teaching-related activities; those who lean moderately toward either teaching or research spend about 2½ hours; those who are strongly oriented toward teaching, almost 4 hours. Teaching-related activities include not lecturing itself, but class preparation, student guidance, and examinations.

Conversely, the more interested university professors are in research, the more actively involved they are in research. For example, as regards time spent on research, the proportions vary according to the four categories of teaching and research orientation from 22 to 47 percent of

Table 11.7

PERSONAL PREFERENCES IN TEACHING OR RESEARCH (PERCENTAGES)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
Primarily teaching	5	6	29	7
Both, leaning toward teaching	30	22	49	27
Both, leaning toward research	59	46	21	47
Primarily research	7	26	1	19
Total	100	100	100	100
(N)	(661)	(1,822)	(238)	(2,721)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

Table 11.8

TEACHING AND RESEARCH ACTIVITIES—BY PREFERENCES FOR TEACHING OR RESEARCH

	PRIMARILY TEACHING	BOTH, BUT LEANING TOWARD TEACHING	BOTH, BUT LEANING TOWARD RESEARCH	PRIMARILY RESEARCH	TOTAL
UNIVERSITY PROFESSORS					
Time spent on teaching (%)	52	38	33	22	34
Time spent on research (%)	22	35	39	47	38
Hrs/wk in seminars/lectures this semester (mean)	9.9	10.0	8.6	7.8	9.0
Hrs/wk individual study with students this semester (mean)	3.4	2.6	3.1	2.7	2.9
Frequent authors[a] (%)	47	75	89	93	83
Memberships in academic societies (mean)	2.1	4.1	4.9	6.7	4.7
Number of conferences attended in the last three years (mean)	4.8	8.9	11.5	14.3	10.7
UNIVERSITY JUNIOR STAFF					
Time spent on teaching (%)	37	29	21	13	22
Time spent on research (%)	31	41	54	70	54
Hrs/wk in seminars/lectures this semester (mean)	7.3	6.5	5.6	5.3	5.9
Hrs/wk individual study with students this semester (mean)	2.0	2.1	2.2	2.5	2.2

(*continued*)

Table 11.8 (continued)

TEACHING AND RESEARCH ACTIVITIES—BY PREFERENCES FOR TEACHING OR RESEARCH

	PRIMARILY TEACHING	BOTH, BUT LEANING TOWARD TEACHING	BOTH, BUT LEANING TOWARD RESEARCH	PRIMARILY RESEARCH	TOTAL
Frequent authors[a] (%)	27	38	52	46	46
Memberships in academic societies (mean)	1.4	1.5	1.9	1.3	1.6
Number of conferences attended in the last three years (mean)	5.1	6.1	7.1	5.6	6.3
FACHHOCHSCHULE PROFESSORS					
Time spent on teaching (%)	67	61	55	—	62
Time spent on research (%)	14	17	22	—	17
Hrs/wk in seminars/lectures this semester (mean)	17.5	18.1	16.0	—	17.5
Hrs/wk individual study with students this semester (mean)	2.3	2.6	3.6	—	2.7
Frequent authors[a] (%)	17	28	52	—	30
Memberships in academic societies (mean)	1.0	1.6	2.0	—	1.5
Number of conferences attended in the last three years (mean)	4.1	4.4	5.6	—	4.6

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

[a] Respondents with seven or more publications in the last three years.

their work time. Regarding publications, the proportion of those reporting seven or more publications during the last three years ranges from 47 to 93 percent. The percentage of those joining academic societies varies correspondingly from 2.1 to 6.7, and those attending conferences similarly range from 4.8 to 14.3 percent. Participation in international academic activities is clearly linked to research orientation.

Junior academic staff at universities vary similarly regarding the time they allocate to teaching-related activities, their involvement in research projects, and the extent of their publication activities. However, junior staff membership in academic societies and participation in academic conferences are not linked to their teaching or research orientation.

Finally, time spent on teaching-related activities by academics at *Fachhochschulen* varies only to a very limited extent according to their teaching and research orientation. The teaching load is more evenly fixed, and as the teaching load is very high, most *Fachhochschule* professors spend little more than one hour on teaching-related activities for each hour they teach. This does not mean, however, that *Fachhochschule* professors' orientations have no effect on their activities. The greater their attachment to research, the more hours they spend on research-related activities and the greater their involvement in research and publishing. Membership in academic societies and conference attendance vary only moderately according to the teaching and research orientation.

WORKING CONDITIONS AND JOB SATISFACTION

Resources for Teaching and Research

Academics at German universities evaluate the resources available for their work neither positively nor negatively. On average, senior and junior academics at universities rate the resources available to them at 2.6 on a scale from 1 = "excellent" to 4 = "poor." This suggests that the strong role of German professors does not prevent junior staff from having satisfactory access to resources. Notably, German university professors assess their secretarial support more favorably than do their colleagues in other countries. Otherwise, on the issue of resources in general, their ratings correspond to the average responses in other European countries.

Fachhochschule professors rate their facilities and resources for support of their academic work more negatively than do academics at universities (table 11.9). The only exception in this respect is computer facilities, which are assessed somewhat positively by academics at both types of higher education institutions in Germany.

Influence and Disposition

German university professors rate their influence in shaping key academic policies at the level of their institute as quite high. They report having only moderate influence at the departmental/faculty level and hardly any at the university level. *Fachhochschule* professors consider themselves to be more influential at the departmental level than do university professors (table 11.10). This is certainly in part a consequence of department size, which is smaller on average at *Fachhochschulen* than at universities.

One of the most striking differences between junior and senior staff revealed in this survey is the limited influence junior staff perceive themselves as having in shaping affairs at their institute or department. It is worth noting that the respective ratings of those with a doctoral degree do not differ on average from those not yet granted a doctoral degree. When compared with other countries, we note that German junior staff feel they have the least influence in this respect.

As regards the amount of control academics have in designing their research projects, 92 percent of German university professors feel free to focus their research on any topic of their own choosing. The mean score of 1.4 on a five-point scale is among the highest of the countries surveyed. A lesser proportion of professors at *Fachhochschulen* feel in the position to determine the focus of their research (77 percent). One might assume that those not responding affirmatively perceive constraints regarding time and resources rather than any proscriptions from the institution or their colleagues. Junior staff at German universities feel less free than

Table 11.9

ASSESSMENT OF FACILITIES AND PERSONAL RESOURCES TO SUPPORT ACADEMIC WORK (MEAN)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
Classroom	2.7	2.6	3.0	2.6
Technology for teaching	2.6	2.6	2.8	2.6
Laboratories	2.5	2.6	2.7	2.6
Research equipment	2.7	2.5	3.2	2.6
Computer facilities	2.4	2.4	2.3	2.4
Library holdings	2.5	2.5	2.7	2.5
Faculty offices	2.8	2.8	3.4	2.8
Secretarial support	2.5	2.7	3.2	2.7
(N)	(637)	(1,760)	(240)	(2,637)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

Note: On a scale from 1 = "excellent" to 4 = "poor."

Table 11.10

PERSONAL INFLUENCE IN SHAPING KEY ACADEMIC POLICIES (MEAN)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
At the level of institute, etc.	1.9	3.0	2.3	2.7
At the level of department, etc.	2.6	3.7	2.3	3.3
At the institutional level	3.4	3.9	3.4	3.7
(N)	(632)	(1,646)	(222)	(2,500)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

Note: On a scale from 1 = "very influential" to 4 = "not at all influential."

their colleagues in all the other countries surveyed in determining the focus of their research. The mean scores are 2.5 for those holding a doctoral degree (with 57 percent responding affirmatively) and only 2.9 for those not holding a doctoral degree (with 43 percent responding affirmatively).

As regards teaching, 84 percent of German university professors feel free in determining the content of the courses they teach (mean score of 1.7). This is again among the highest scores on this point in the international survey. Seventy percent of professors at *Fachhochschulen* feel free to decide the content of their courses (mean score of 2.0). This is somewhat lower than the respective proportion among German university professors but higher than among staff at other institutions of higher education in the other countries surveyed. As in the case of research, German junior staff feel the least free in determining the content of their courses. The respective mean scores and proportions are 2.7 and 51 percent for those holding a doctoral degree and 3.0 and 42 percent for those not holding a doctoral degree.

It should be noted that academics were not systematically questioned about existing infringements of their autonomy or about the persons, agencies, or mechanisms that they consider to exert a controlling influence. They were also not asked to what extent and under what conditions they consider existing infringements to be legitimate or even desirable or to what extent they consider them as an encroachment on their academic rights and responsibilities. Thus, we can only report the respondents' self-perceptions, without explaining the infringements they may feel. The finding, though, that German university professors (along with U.S. professors at research universities) perceive themselves as having the greatest control in determining their core activities—whereas German junior staff at universities feel the least free to do so in comparison with their colleagues in the other countries surveyed—is certainly a significant feature of the environment of German universities. This confirms that only scholars at German universities holding a rank comparable to at least an associate professor in the United States are perceived to be regular, independent members of the academic community.

Job Satisfaction

About two-thirds of German university professors express satisfaction with their overall job situation. The mean score of 2.4 on a scale from 1 = "very satisfied" to 5 = "very dissatisfied" underscores the fact that the satisfaction expressed is not without reservation. Except for a few countries, professors at research universities express a similar degree of overall satisfaction. Professors at *Fachhochschulen* are clearly less satisfied. Less than half consider their overall situation as satisfactory (table 11.11). The mean score of 2.7 is about average among the countries in which this question was posed in the international study. Less than one-third of junior staff at German universities are satisfied with their job situation as a whole, with no difference in the responses, on average, between those holding a doctoral degree and those without a doctoral degree. The mean score of 3.1 is lower than that among junior staff in all the other countries surveyed.

Asked about individual aspects, junior staff at universities do not respond much more negatively than senior staff regarding the substance of their job assignments. However, as already mentioned, junior staff do rate job security far more negatively. A regression analysis provides evidence that overall satisfaction with the job is most clearly influenced by the satisfaction of the German respondents with the position they have attained. Additionally, intrinsic aspects (i.e., satisfaction with the courses they teach and research they conduct) play a significant role for university professors. In contrast, junior staff satisfaction is more strongly determined by extrinsic aspects (i.e., job security and advancement opportunities) (table 11.12). Finally, apart from the position they have attained, no further aspect is significantly related to the overall satisfaction expressed by *Fachhochschule* professors.

SELECTED ASPECTS OF TEACHING, RESEARCH, AND SERVICE

Training and Qualifications for Teaching and Research

Although the academic profession claims there is a need for systematic analysis in all spheres of life, training for the academic profession is

Table 11.11

ASPECTS OF JOB SATISFACTION
(PERCENTAGE RESPONDING "1" AND "2" ON A 5-POINT SCALE)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	FACHHOCHSCHULE PROFESSORS	ALL FACULTY
Income	65	44	35	48
Prospects for improvement of income	9	25	8	20
Courses you teach	72	53	68	59
Relationship to your colleagues	64	74	68	71
Job security	93	43	92	60
Research	58	56	10	53
Advancement opportunities	29	13	5	15
University administration	20	7	11	11
Opportunities to develop ideas	61	51	32	52
Position you have attained	79	44	60	54
Professional situation in general	64	32	47	41
(N)	(655)	(1,778)	(235)	(2,668)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

Note: 1 = "very satisfied"; 5 = "very dissatisfied".

Table 11.12

IMPACT OF VARIOUS ASPECTS OF JOB SATISFACTION ON OVERALL JOB SATISFACTION (REGRESSION COEFFICIENTS AND EXPLAINED VARIANCE)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	FACHHOCHSCHULE PROFESSORS	ALL FACULTY
Income	0.04	0.11	0.02	0.07
Prospects for improvement of income	−0.01	0.09	0.11	0.07
Courses you teach	0.17[a]	0.02	0.05	0.07
Relationship to your colleagues	0.01	−0.02	−0.01	−0.02
Job security	0.05	0.17[a]	0.01	0.20[a]
Research	0.22[a]	0.05	0.11	0.07
Advancement opportunities	0.02	0.17[a]	−0.02	0.12[a]
University administration	0.06	0.03	0.10	0.06
Opportunities to develop ideas	0.07	0.02	0.01	0.02
Position you have attained	0.46[a]	0.31[a]	0.56[a]	0.35[a]
Explained variance	0.50	0.32	0.47	0.38

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

[a] Significant at the 0.05 level.

hardly based on systematic teaching and learning processes but rather on elements of apprenticeship training and experiential learning. In response to a question regarding the availability of training for teaching at German universities, only 30 percent of German university professors and 22 percent of junior staff respond affirmatively. Similarly, only 27 percent of German university professors and 39 percent of junior staff state that there are training opportunities for research. The positive responses of *Fachhochschule* professors concerning training for teaching and research (9 percent and 3 percent, respectively) are minimal. This reflects the fact that *Fachhochschule* teachers typically spend prior career stages not at *Fachhochschulen*, but rather at universities and outside academia. Nevertheless, most German academics feel well qualified for teaching and research (table 11.13). Similar responses are given when respondents are asked to assess their abilities as teachers and researchers.

As the system of training and recruitment for professorships in Germany is frequently criticized for putting almost exclusive emphasis on research qualification, and as hardly any formal training provision for teaching exists, the above findings are obviously unexpected: the proportion of junior staff who consider themselves well qualified for teaching is almost as high as the proportion who consider themselves well qualified for research. University professors are even more likely to consider themselves better qualified for teaching than for research. They obviously believe that involvement in research as well as trial-and-error learning or learning-by-doing in university teaching, accompanied by occasional advice, meet the requirements for becoming a good university teacher.

It should be noted, though, that the responses of German academics on these issues are not strictly comparable to those of academics in other countries. In the German questionnaire, respondents were asked "How well trained/qualified do you feel for . . . ?" instead of "How would you assess the quality of the training you received for . . . ?" It is also worth noting that about three-quarters of *Fachhochschule* professors consider themselves to be well qualified for research. As a doctoral degree is one of the entry qualifications for a teaching career at *Fachhochschulen*, they believe themselves to be well prepared for research. In response to a question about how they assess their own abilities as a researcher, 53

Table 11.13

ASSESSMENT OF FACULTY QUALIFICATIONS FOR TEACHING AND RESEARCH (PERCENTAGE RESPONDING "1" AND "2" ON A 4-POINT SCALE)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
Teaching	90	68	91	76
Research	85	71	73	75
(N)	(627)	(1,731)	(178)	(2,536)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

Note: 1 = "very well qualified"; 4 = "not at all qualified."

percent describe their abilities as being good. This proportion is clearly lower than the percentage considering themselves to be well qualified or well trained, but is nevertheless very high, if we take into account the fact that research is viewed only as an optional activity for *Fachhochschule* professors.

Class Size

Based on the responses regarding largest and smallest student numbers in their classes, it appears that the average class size in introductory courses at German universities is about 120 students, if taught by a professor, and about 60, if taught by junior staff. At *Fachhochschulen*, about 60 students attend introductory courses on average. The average class size in other first-degree programs at German universities is about 50 students, if taught by a professor, and about 40, if taught by junior staff. The average class size in other degree courses at *Fachhochschulen* is somewhat more than 40 students (table 11.14).

The data do not confirm the widespread notion of a preponderance of mass lecture courses at German universities. The average class size in introductory courses taught by university professors is about the same as in the corresponding courses in the Netherlands and Japan, and only one-third higher than in the United Kingdom. In economic fields, however, German university professors report an average class size of about four hundred students in introductory courses.

On the other hand, one might have expected, following conventional wisdom, a smaller class size in introductory courses at *Fachhochschulen*. However, many *Fachhochschulen* have recently given up their traditional practice of teaching all their students in classes of about thirty students.

Graduate courses or other advanced courses tend to serve a smaller number of students than do courses for first-degree students. The number of students in graduate courses taught by university professors is estimated to be eighteen, and in those taught by junior staff the estimate is fifteen; at *Fachhochschulen* the average class size of advanced courses is reported to be twenty-four students.

Table 11.14

ESTIMATED AVERAGE NUMBER OF STUDENTS ENROLLED IN COURSES

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
In introductory courses	122	63	60	85
In other first-degree courses	52	38	44	40
In graduate/professional courses	18	15	24	17

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

Note: Estimates are based on the mean between largest and smallest classes taught or on class size reported, if only one class in the respective category was taught.

Aims and Modes of Teaching

The public debate in Germany makes a clear distinction between the two major types of higher education institutions when defining educational goals. The universities are supposed to emphasize theory, whereas the *Fachhochschulen* are expected to provide professional preparation. However, the responses to the question about the goals of teaching and learning suggest only moderate differences exist between professors at universities and those at *Fachhochschulen* (table 11.15). On the one hand, while university professors most frequently identify the teaching of theories, concepts, and paradigms as important goals (87 percent), professional problem solving is almost as frequently stressed (77 percent). On the other hand, while professional problem solving is, in fact, almost universally viewed as a major aim of teaching and learning by *Fachhochschule* professors (95 percent), emphasis on theories is also cited by almost three-quarters (72 percent). Professors at the two types of institutions differ most strikingly in the emphasis they put on research methods within the framework of their teaching activities. Only 32 percent of *Fachhochschule* professors consider research methods to be an important aim of teaching, as compared to 73 percent of university professors.

Both German university professors and *Fachhochschule* professors state that they spend about two-thirds of their time in introductory classes on lecturing. This proportion is lower than that in courses taught by Japanese and Korean professors, about the same as in those taught by U.S. professors, but higher than the average in Europe. In contrast, German junior staff at universities, as is the case with junior staff in other countries as well, spend more time on supervising laboratory work and on other teaching activities (table 11.16).

Research Activities and Funding

At the time the survey was conducted, 84 percent of professors and 75 percent of junior staff at German universities were engaged in research projects (table 11.17). Less than 60 percent involvement in research projects was found in the fine arts and in economic fields, both on the

Table 11.15

EDUCATIONAL GOALS OF TEACHING, BY TYPE OF FACULTY (PERCENTAGE REPORTING THESE GOALS TO BE "IMPORTANT")

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
Facts	63	54	58	56
Theories, concepts, paradigms	87	76	72	78
Research methods	73	64	32	64
Professional problem solving	77	74	95	77
(N)	(644)	(1,601)	(218)	(2,463)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

Table 11.16

TIME SPENT ON VARIOUS ACTIVITIES IN INTRODUCTORY FIRST-DEGREE COURSES (MEAN PERCENTAGES)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
Lecture	63	50	67	57
Class discussion	24	25	20	24
Laboratory work	6	14	9	11
Other activities	6	10	4	8
Total	100	100	100	100
(N)	(479)	(795)	(144)	(1,418)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

Table 11.17

RESEARCH ACTIVITIES AND FUNDING (PERCENTAGES)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
Currently engaged in research projects	84	75	33	74
Collaborative research projects	65	56	18	56
External research grants	63	45	20	47
"In my academic position at this institution, regular research activity is expected." (Percentage agreeing)	84	77	13	74

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

part of senior and junior staff; and in the humanities and law, only among junior staff. The proportion of German scholars actively involved in research projects is lower than that in the other European countries surveyed. Obviously, a significant number of German academics are not inclined to structure reflective thinking and scholarship in the form of projects.

About three-quarters of those engaged in research projects undertake collaborative research. About one-fifth of professors and one-third of junior staff involved in collaborative research indicate that they do both individual and collaborative research.

Sixty-three percent of university professors and 45 percent of junior staff at universities had been funded by external grants, which were awarded either to themselves, to their research group, or to their research supervisors. Among all German university professors surveyed, those in engineering had received slightly more than DM 1 million, on average, during the previous three years; those in the natural sciences, somewhat more than DM 700,000; in medicine, about DM 500,000; in the humanities and social sciences, between DM 300,000 and DM 400,000; in economic fields, about DM 200,000; and in education, the fine arts, and law, about DM 100,000.

The data on research activities and research funding clearly underscore the fact that German *Fachhochschulen* (as well as the Dutch *HBOs*) are teaching institutions, in which only a minority of academics are involved in research. In contrast, the majority of academics at British polytechnics and Swedish university colleges are involved in research. Actually, 33 percent of *Fachhochschule* professors are involved in research projects, and 23 percent receive external research grants. Thirteen percent respond affirmatively to the statement "In my academic position at this institution, regular research activity is expected." The respective proportions are lowest in engineering and highest in social work.

Publication and Related Activity

Publication patterns vary substantially by country. As the available comparative data show, German university professors publish less than their Japanese and Dutch colleagues, about as much as their British colleagues, but more than their U.S. and Swedish colleagues. In part, this reflects differences in publishing practices outside the domain of refereed academic journals.

German university professors, on average, report having written and edited one book, having published nine articles in academic books and journals, and having additionally presented five papers at conferences within the previous three years (table 11.18). Professors in medical, engineering, and scientific fields publish more articles and present more conference papers than do their colleagues in the humanities and social sciences, but the former write and edit fewer books. Postdoctoral junior staff at German universities publish somewhat more than half the number of books and articles that university professors publish. Junior staff not holding a doctoral degree publish much less.

As one might expect on the basis of the information provided above, professors at *Fachhochschulen* publish less than junior staff at universities. It is worth noting, though, that professors at *Fachhochschulen* publish more than do their colleagues at comparable institutions elsewhere in Europe. However, a smaller proportion of *Fachhochschule* professors are involved in research projects than is the case with their British and Swedish colleagues.

Service

German university professors spend about 8 percent of their working time on service, junior staff at universities about 14 percent, and professors at *Fachhochschulen* about 7 percent (table 11.5). About half of these activities involve institutional service, and about half are externally oriented. University professors spend on average 2 percent of their time, and junior university staff and *Fachhochschule* professors 1 percent, participating in academic societies. Four, 2, and 3 percent, respectively, of the respondents' time is spent on counseling and other expert activities, and 2, 1, and 1 percent of the respondents' activities were viewed as internal academic service.

As is also reported by academics from other countries, German

Table 11.18

NUMBER OF PUBLICATIONS AND OTHER SCHOLARLY CONTRIBUTIONS COMPLETED IN THE LAST THREE YEARS (MEAN)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF (POSTDOCTORAL)	UNIVERSITY JUNIOR PROFESSORS (DOCTORAL)	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
Scholarly books authored	0.8	0.4	0.1	0.4	0.4
Scholarly books edited	0.9	0.2	0.1	0.2	0.3
Articles published in an academic book or journal	9.2	5.8	1.4	2.3	4.8
Research reports or monographs written for funded project	1.8	1.0	0.8	0.5	1.1
Papers presented at a scholarly conference	5.2	4.6	1.4	1.1	3.4
Professional articles written for a newspaper or magazine	1.1	1.3	0.3	0.8	0.9
Patents secured on a process or invention	0.3	0.1	0.0	0.3	0.1
Computer programs written for public use	0.2	0.2	0.3	0.1	0.2
Artistic works performed or exhibited	0.5	0.1	0.1	0.6	0.2
Videos or films produced	0.2	0.2	0.1	0.1	0.1
Other	0.4	0.2	0.1	0.7	0.3
(N)	(676)	(924)	(938)	(244)	(2,778)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

academics are remunerated for merely a small proportion of their service: only 14 percent of the time spent by university professors, 21 percent of the time spent by junior staff at universities, and 19 percent of the time spent by *Fachhochschule* professors is actually remunerated.

Most German scholars consider the application of knowledge to practical problems an obligation. The statement "Faculty in my discipline have a professional obligation to apply their knowledge to problems in society" is answered affirmatively by 96 percent of German university professors, 93 percent of junior staff at universities, and 89 percent of academics at *Fachhochschulen*. These proportions are higher than in any of the other countries surveyed, and conflict with frequent public claims that too many German university professors have an ivory-tower attitude.

ATTITUDES TOWARD HIGHER EDUCATION AND SOCIETY

A substantial number of questions in the international study focus on academics' views and attitudes toward higher education in general as well as the role of higher education and of academics in society—a few of which are reported here. In response to a question regarding their commitments, academics in all countries express a very strong affiliation to their discipline; their commitment to their department/faculty ranks second, with their institution in third place. This holds true for academics of different ranks and types of institutions.

German academics, however, differ from other academics included in this study in taking a purely "cosmopolitan" position. They place a strong emphasis on the discipline, but place little importance on their affiliation to their department and institution. This is the case for all three institution and rank categories employed in this analysis (table 11.19).

One might assume that the degree of commitment of faculty to their discipline and institution is influenced by their orientation toward teaching or research. Studies on the academic profession discussing these interrelationships have led to the positing of contrasting types—such as the "locals" and "cosmopolitans,"[12] or the coexistence of the "ones" and the "manys."[13] In fact, German academics leaning toward, or even those whose prime focus is on, research feel the least committed to the

Table 11.19

COMMITMENT TO DISCIPLINE, DEPARTMENT, AND INSTITUTION (MEAN)

	UNIVERSITY PROFESSORS	UNIVERSITY JUNIOR STAFF	*FACHHOCHSCHULE* PROFESSORS	ALL FACULTY
Academic discipline	1.3	1.6	1.4	1.5
Department	2.6	2.5	2.4	2.5
Institution	2.6	3.0	2.9	2.9
(N)	(656)	(1,843)	(228)	(2,727)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

Note: On a scale from 1 = "very important" to 4 = "not at all important."

department and the institution, whereas commitment to the academic discipline does not vary according to orientation toward research or teaching (table 11.20).

Academics in Germany, like their colleagues in other industrial societies, recommend emphatically that in the future higher education should put a priority on promoting scholarship and research as well as on protecting free intellectual inquiry. They suggest, somewhat less emphatically, that higher education should help solve basic social problems and express only moderate support for the idea that higher education should put a priority on preserving the cultural heritage. Again, there are no substantial differences by status or institutional category.

In comparison with their colleagues in other countries, German academics place a higher priority on preparing students for work, whereas they rank as less important the education of students for leadership. German academics, as well as their Japanese counterparts, do not support the idea of placing a high priority for future higher education policy on "strengthening the nation's capacity to compete internationally." As they are equally in favor of practical and social problem solving through higher education, German and Japanese academics' responses concerning national competitiveness may reflect a distaste for the nationalistic undercurrent in this item.

As regards future priorities of higher education, the views of junior staff at universities and of *Fachhochschule* professors are, on average, quite similar to those of university professors. There are, however, significant differences by discipline (table 11.21). Professors of economics and business studies support a strong emphasis on educating students for leadership, whereas preparation for future work is most strongly advocated by professors in engineering, education, and—somewhat unexpectedly—the fine arts. Professors in education differ from the others in favoring lifelong learning for adults and they are somewhat less supportive of protecting free intellectual inquiry and of promoting scholarship and research. Not surprisingly, professors in the fine arts give a high priority to the aim of preserving the cultural heritage. Most professors in the humanities and social sciences, except for those in the economic fields, oppose more strongly than do their colleagues in scientific

Table 11.20

COMMITMENT TO DISCIPLINE, DEPARTMENT, AND INSTITUTION, BY PREFERENCES IN TEACHING OR RESEARCH (MEAN)

	PRIMARILY TEACHING	BOTH, BUT LEANING TOWARD TEACHING	BOTH, BUT LEANING TOWARD RESEARCH	PRIMARILY RESEARCH	ALL FACULTY
Academic discipline	1.5	1.5	1.5	1.6	1.5
Department	2.4	2.5	2.5	2.7	2.5
Institution	2.7	2.7	2.9	3.2	2.9
(N)	(196)	(715)	(1,256)	(512)	(2,679)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

Note: On a scale from 1 = "very important" to 4 = "not at all important."

Table 11.21

UNIVERSITY PROFESSORS' VIEWS OF FUTURE PRIORITIES OF HIGHER EDUCATION IN GERMANY—BY FIELD (MEAN)

	EDUCATION	HUMANITIES	ART	LAW	SOCIAL SCIENCES	ECONOMICS	NATURAL SCIENCES	MEDICINE	ENGINEERING	OTHERS	TOTAL
Educating students for leadership	1.9	2.1	1.8	1.9	2.0	1.6	2.0	2.2	2.1	2.1	2.0
Preparing students for work	1.4	1.8	1.4	1.6	1.8	1.7	1.8	1.7	1.3	1.7	1.7
Lifelong learning for adults	1.8	2.2	2.0	2.6	2.2	2.1	2.4	2.4	2.3	2.3	2.3
Preserving the cultural heritage	2.6	2.1	1.6	2.3	2.7	2.4	2.4	2.3	2.5	2.3	2.3
Protecting free intellectual inquiry	2.1	1.6	1.6	1.6	1.8	1.6	1.6	1.6	1.9	1.6	1.6
Promoting scholarship and research	1.7	1.4	1.4	1.4	1.6	1.5	1.4	1.5	1.6	1.6	1.5
Strengthening the nation's capacity to compete internationally	3.4	3.1	2.7	3.0	3.0	2.5	2.4	2.5	2.5	3.2	2.7
Helping to resolve basic social problems	1.8	1.9	2.0	2.0	2.0	2.2	2.3	2.3	2.3	1.6	2.1
(N)	(16)	(142)	(42)	(30)	(44)	(30)	(179)	(82)	(61)	(12)	(638)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Germany).

Note: On a scale from 1 = "highest priority" to 4 = "lowest priority."

disciplines the idea that a high priority should be placed on strengthening the nation's capacity to compete internationally.

Conversely, professors in the humanities and social sciences are more inclined than those in the scientific disciplines to favor making use of higher education to help solve basic social problems. Only 15 percent of German academics think that "academics are among the most influential opinion leaders." This proportion is lower than that among Japanese academics, for example, but higher than that among British academics.

Again, we note that views of German academics differ only marginally by institutional and status category. The differences by discipline are noteworthy: whereas few university professors in education and in the sciences consider academics to have much influence (7 percent each), a substantial proportion of professors in economic fields (28 percent) conceive of academics as influential opinion leaders.

These selected findings indicate (and this is confirmed by other findings not reported here) that university professors, junior staff at universities, and *Fachhochschule* professors are quite similar in their views about the relationship beween higher education and society. This is in contrast to the findings in other countries that show clear distinctions among academics in these three institution and staff categories.

CONCLUSION

In summing up the findings, we have selected examples where German academics stand out in comparison to academics in the other comparable countries in this survey (notably other Western European countries as well as the United States and Japan). We believe an internationally comparative study is most valuable in making us aware of these differences.

We have presented findings not on the German academic profession in general but split according to three categories: university professors, junior academic staff at universities, and academics (mostly professors) at *Fachhochschulen*. We noted many substantial differences in the inner life of higher education institutions and the academic profession. In terms of work tasks, working conditions, and employment conditions as well as professional attitudes and activities, we noted considerable differences among the three categories of academics. Given these differences, one would hesitate to consider them part of the same professional group, although with respect to general views about the role of higher education in society, the high degree of common values would seem to support the notion of one academic profession. German university professors stand out most strikingly in conceiving of themselves purely as "cosmopolitans"—they consider themselves least committed to their department and university.

German university professors spend more time than their colleagues in other countries on teaching (they also report the highest number of hours spent on class teaching per week). This cannot be attributed—as frequently occurs in the public debate in Germany—to the increasing student–academic staff ratio. First, prior surveys show that the time devoted to research has grown over the years in spite of an increasing student–academic staff ratio. Second, class size at German universities is no higher than in the Netherlands and Japan and not much higher than in the United Kingdom. Third, German university professors more often express a preference for teaching than do their European colleagues (only second to professors at U.S. research universities). It should be added here that German professors feel quite free to determine their teaching activities themselves.

German university professors reserve a substantial proportion of class time for lecturing. They—more than all other respondents—consider preparing students for work to be an important priority for higher education. The number of German university professors not involved in research projects is higher than that among their European colleagues. They most frequently believe that academics have a professional obligation to apply their knowledge to solving the problems of society.

Overall, German university professors are not only satisfied with their professional activities but are also among those expressing the greatest satisfaction with their remuneration. They consider the available resources to be no better than average, with the exception of secretarial support, which they rate more highly than do their colleagues in other countries. Whereas most senior academic staff at universities are in secure positions, many junior academics at German universities are contracted for a limited period. Though conditions vary significantly by country, Germany is one of the countries (together with the United States and Japan) where junior academics are least satisfied with their jobs, as far as job security is concerned. In addition, junior academics at German universities complain most strongly about lack of opportunities for career advancement. In general, junior academics are somewhat less satisfied with their employment and work conditions than senior academics.

The functions of junior as compared to senior academic staff at (research-oriented) universities differ substantially by country. Germany is one of the countries in which the majority of junior academics at universities have a lower teaching load than do senior academics. Otherwise, many conditions of teaching experienced by German junior staff resemble those in other countries. Junior academics tend to have smaller classes and put more emphasis on discussion in their courses than do senior professors. Junior academics react slightly more negatively when asked about the resources available for their work. The difference between their responses and those of senior academics, however, is much smaller in this respect than one might expect.

German respondents are also the most dissatisfied among junior academic staff at universities in comparable countries regarding their employment and professional work conditions. This does not come as a surprise, because junior academic staff at German universities are generally considered to have little job security and to be less independent in determining their work tasks than are junior academics in many other countries. On the other hand, they have a relatively small average teaching load.

One should bear in mind, though, that the German survey comprises a substantial number of persons still in the earliest stages of their academic careers (i.e., in positions that are roughly parallel to those of part-time teaching and research assistants or that of doctoral students in other countries included in the survey). Therefore, the differences by country might be to some extent artificial.

Professors at *Fachhochschulen* have a teaching load that is about double that of university professors. A similar difference can also be observed among senior staff at the two types of higher education institutions in the Netherlands. The differences in teaching load between institution types are smaller in Sweden and in England than in Germany, while greater disparities exist between academics at research-oriented and "other" universities in the United States and Japan. Academics at *Fachhochschulen* spend less time on research, are less research oriented, publish much less, and are less international in their activities, compared to academics at universities. On these issues, the German findings are in some ways less striking than those for the Netherlands, no more pronounced than those for England, but much more so than those for Sweden. Academic staff at the *Fachhochschulen*, like their colleagues at other institutions of higher education in Europe, rate their employment and work conditions somewhat less favorably than do academics at universities. They tend to be less satisfied with their profession, though this varies considerably by country. They work fewer hours per week—in other words, they appear less willing than their colleagues at research-oriented universities to work substantially more hours than their contracts require.

In various respects, this survey provides less of a sense of crisis in the academic profession in Germany than the public debate would suggest. University professors are relatively satisfied with their employment and working conditions. They seem able to keep from neglecting their teaching in spite of their research emphasis, and their research has not suffered because of the increases in the student–staff ratio over the last two decades. Their outlook is cosmopolitan in that they feel little attachment to their departments and institutions. However, theirs does not seem to be an "ivory tower" profession, for they are supportive of higher education's role in practical problem solving. *Fachhochschule* professors are also relatively satisfied with their employment and working conditions, and a substantial proportion of them are involved in research in spite of their high teaching loads. Despite the problems in evidence in German higher education, academic staff in the *Fachhochschulen* are remarkably positive about the state of affairs in academe.

Some aspects of higher education are viewed with less enthusiasm by academics. They are conscious of having very little influence in the governance of their own institutions: the days when an "academic guild" ruled the university definitely seem to have passed. By and large, the resources for their work are more frequently viewed as an impediment. Also, a considerable number of academics view the academic profession as underpaid and insufficiently respected. By and large, however, the results of the survey do not portray academics as excessively disappointed and resentful. The relatively independent nature of their jobs obviously allows most academics to find areas within their professional activity that are a source of professional fulfillment and satisfaction.

This survey does, however, point out serious problems in two areas. The first has not been discussed in this chapter: German academics rate the administration of higher education very negatively. The second was discussed in detail: junior academic staff in Germany assess more negatively their employment and working conditions than do their colleagues in comparable countries. The differences documented in this survey are to a certain extent artificial, because a substantial number of junior staff in the German sample are in positions that either hardly exist in the other countries surveyed or have been only partially included in this study. But even if we take these factors into account, academic staff in career stages equivalent to assistant professorships in the United States have less of a sense of belonging and of sharing the opportunities of their senior colleagues. This is certainly reinforced by the German *Habilitation*, which could be viewed as a very late initiation rite into the academic profession. It will be interesting to observe whether these two critical findings from the current survey will have an impact on future debates in Germany over the academic profession. The issues are not new, but the comparative information might shed new light.

Peter A. Geurts, Peter A. M. Maassen, Frans A. van Vught

THE DUTCH PROFESSORIATE

THE *Encyclopedia of Higher Education* has no separate entry for *academic profession*, neither in the index nor in the title of any of the articles.[1] One of the explanations for this omission might be found in the article on models of academic governance in the same encyclopedia,[2] in which the author suggests that the term "professional" is not appropriate for continental European academics, since they are civil servants and as such part of the state.[3] They do not belong to the so-called free professions. The discussion on whether an academic profession exists at all is not new. It has been questioned for some time whether academics belong to a profession.[4] Moreover, even if one acknowledges the existence of an academic profession, one has to accept that this profession is not a coherent one. It consists of many different professional groups, each with its own tasks, values, and cultures.[5]

In this chapter, the academic groups working in Dutch universities are examined. The discussion is based on the survey conducted within the framework of the international study on the academic profession by The Carnegie Foundation for the Advancement of Teaching. Five groups have been distinguished, based on the characteristics of the academic staff of Dutch universities: ***hoogleraren*** (full professors), ***universitair hoofddocenten*** (associate professors), ***universitair docenten*** (assistant professors), ***medewerkers onderzoek*** (research associates), and ***medewerkers onderwijs*** (teaching associates). This chapter focuses on the differences and similarities among these academic professional groups with respect to the way they perceive their own professional activities. On the basis of the above-mentioned considerations, in this chapter we will refer to the Dutch professoriate instead of to the Dutch academic profession. Special attention will be given to the way the professoriate in the Netherlands has been influenced by recent policy developments. To set the stage, a general overview of the Dutch higher education system will first be presented.[6]

The Dutch Higher Education System: Structure and Trends

The Netherlands, with around 15 million inhabitants, has a binary higher education system consisting of thirteen (research) universities, and about eighty institutions for higher vocational education.[7] In addition, there is an Open University, providing distance higher education. All higher education institutions in the Netherlands are funded primarily (80 to 95 percent) by the state, and they operate within the centrally established legal and funding framework.

In the Netherlands, everyone has the right to enroll as a student at either a university or an institution for higher vocational education, provided the standard entry requirements of a secondary school diploma are met. These enrollments are regulated and registered by the Ministry of Education and Science. In 1991, some 172,000 students were enrolled in university education (table 12.1).

The right of admission to higher education for everyone holding the adequate diploma is a principal objective of Dutch higher education policy (in 1987, about 32 percent of the population in the eighteen-to-twenty-three age group was enrolled in higher education). There are a limited number of programs for which a *numerus clausus* applies, based either on the capacity of the institutions or on labor market conditions.

As in Germany, universities in the Netherlands tend to be rather homogeneous. Not only can all qualified students enroll at any university, but the distribution of academics across institutions is also rather arbitrary. The universities have few means available for developing competitive institutional personnel policies since all staff are civil servants, and the collective labor agreements are decided upon without the direct involvement of the universities.

Enrollments have increased steadily throughout most of the 1980s, both overall and in number of female students, and have exceeded

Table 12.1

NUMBER OF STUDENTS IN UNIVERSITIES

	ALL STUDENTS	FEMALE STUDENTS
1975–76	118,278	29,757
1980–81	141,482	44,082
1985–86	162,315	60,012
1989–90	164,469	69,506
1990–91	171,232	73,005
1991–92	172,735	75,799

SOURCE: Centraal Bureau voor de Statistiek, *Statistiek van het wetenschappelijk onderwijs* (The Hague: Staatsuitgeverij, 1982, 1987, 1992, 1993).

original estimates. In combination with the existing grant system, this has created substantial budgetary problems for the Ministry of Education and Science, even though government expenditure on higher education has not kept up with rising enrollment levels.

RECENT HIGHER EDUCATION POLICY DEVELOPMENTS

The two basic characteristics of Dutch higher education policy in the first three decades after 1945 were that access to higher education was open to everyone qualified and that there were no qualitative differences between comparable higher education institutions and programs. Terms linked to this policy are "open access" and "equality." It resulted in a publicly financed, rapidly growing higher education system. The explosion of student numbers in the 1960s and early 1970s was followed by a sharp increase of resources for higher education and a tremendous growth in the number of (tenured) academic staff.

In the 1970s Dutch higher education came up against the limits of its growth. The second half of that decade brought, for example, the political end of more or less unconditional government funding of higher education. The problems related to the tremendous quantitative growth of higher education became more and more apparent. In the political and budgetary situation of that time, the government was forced to design and implement restructuring operations to deal with these problems without being able to develop a new policy framework to accompany the repair activities. A new strategy toward higher education, characterized as "remote government control," was developed after the restructuring operations.[8]

According to Teichler, the Netherlands offers the most interesting case in Western Europe for studying recent changes in the relationship between government and higher education institutions.[9] These changes were intentional, numerous, and complex. They were, in general, supported by the central administrations of the institutions since they seemed to pave the way for the institutions to become more autonomous and to a certain extent self-regulating—with respect to essential parts of their operations. Despite some inconsistencies in the way the new "remote control" strategy has been developed (and implemented) since 1985, a lot of progress has been made in creating circumstances in which institutions can operate more flexibly and innovatively.

The strategy has received a lot of attention outside the Netherlands, mainly because it seems to be one of the more prominent European examples of a successful attempt to change the relationship between the government and higher education by actually increasing institutional autonomy. The main policy goals of the new strategy are "quality" and "differentiation," replacing equality as a policy objective. In addition to quality and differentiation, open access is still an underlying governmental policy goal with respect to higher education, despite the budgetary problems it has created.

THE DUTCH PROFESSORIATE: TRENDS AND DEVELOPMENTS

In the previous section, some general background information on Dutch higher education was presented. Now we want to focus on the academic profession. What are the most important characteristics of the Dutch professoriate? And regarding this professoriate, what are the relevant policy developments of the last decades?

History of the Dutch Professoriate

The structure of Dutch universities has been strongly influenced by the model of the German university of the nineteenth century. Present-day Dutch universities subscribe to Humboldtian ideas on the position of research and the mandatory links between teaching and research in the university, academic freedom both in research and teaching, the guild-like origins of the faculties,[10] and the dominant position of the individual chair-holder (i.e., the full professor). However, since 1960 a number of legislative and policy developments have altered the Dutch professoriate and given it a more distinct character of its own. The most important of these are

- the introduction of the new University Education Act in 1960, the first act in which various personnel categories of the universities were distinguished;
- the decree of the system of academic ranks in 1963;
- the passing of the University Governance Restructuring Act (abbreviated in Dutch as WUB) in 1970, leading to a very democratic university governance structure. Democratic, in the context of the WUB, implied the introduction of a representative system in which all personnel sections in a university could contribute equally to institutional policymaking. As a consequence, the formal power in universities was redistributed over the various personnel sections thereby weakening the position of the full professors. This system is still in place;
- a ministerial report published in 1977 that identified the procedure of appointing staff in tenured positions as a major problem;
- a 1979 committee set up by the minister of education focusing on the threat of a graying academic staff;
- a very influential and important 1981 policy document on university academic staff that identified a range of problems, from a lack of mobility to too many associate professors. It suggested the introduction of a new system of academic ranks, which was realized in 1985;

- the introduction, in 1983, of the research trainee as a consequence of the new so-called two-tier structure to create more academic jobs through lower academic personnel costs per unit.[11]

The Dutch Professoriate: One Academic Profession?

As indicated above, it is questionable whether a singular academic profession exists in Dutch higher education. Is it possible to define a clearly distinguishable profession of academics working in Dutch universities? In our opinion, the answer to this question is a negative—that is, the Dutch academic profession does not exist. What *does* exist is a relatively large number of professional groups working in universities, each with its own specific tasks.

In general, the academic staff of Dutch universities is task oriented instead of professionally oriented. Therefore, it is the rank of an academic working in a university, rather than the profession, that is of importance. As a consequence, in analyzing the data we have taken the main academic ranks as a starting point: *hoogleraar* (full professor), *universitair hoofddocent* (associate professor), *universitair docent* (assistant professor), *medewerker onderzoek* (research associate), and *medewerker onderwijs* (teaching associate). In table 12.2, an overview is presented of the university academic staff numbers. In this table research associate and teaching associate are included in the group of "other academic staff." The 1990 data were used for drawing the sample for the Carnegie survey. It should be noted that these numbers are in full-time equivalents (FTEs). Data on the number of persons that are appointed as academic staff at Dutch universities were not available.

One of the starting points of the reorganization of personnel structure in the university sector was that personnel policy in this sector should no longer be career oriented, but instead become position oriented. Enrollment figures, the nature of the various disciplines, and a number of other considerations since 1984 form the basis for determining the number of regular academic staff positions in any university department.[12] This had important consequences for a number of traditional, in

Table 12.2

UNIVERSITY ACADEMIC STAFF, IN FULL-TIME EQUIVALENTS

	1983	1988	1989	1990	1991
Full professor	2,761	2,446	2,391	2,387	2,385
Associate professor or senior lecturer	6,073	2,280	2,351	2,350	2,391
Assistant professor or lecturer	6,494	6,175	5,973	6,030	6,059
Other academic staff	3,134	7,496	7,381	5,862	5,864
Research trainees	N/A	2,674	3,814	4,683	5,120
Nonacademic staff	20,970	21,294	20,867	20,616	20,946
Total	39,432	42,365	42,777	41,928	42,765

SOURCE: Dutch Ministry of Education and Science (DMES), *Hoger Onderwijs en Onderzoek Plan 1990* (Zoetermeer: DMES, 1990), 269; Vereniging van Samenwerkende Nederlandse Universiteiten, *WOPI 1991* and *WOPI 1992* (Utrecht: Vereniging van Samenwerkende Nederlandse Universiteiten, 1991, 1992).

most cases tenured, academic staff members (i.e., full professors, associate professors, and assistant professors in the universities) (table 12.2). By 1989 the number of associate professors, for example, had dropped (as expressed in FTEs) by more than 60 percent since 1983. All in all, the reorganization has led to a decrease (in FTEs) in traditional academic staff positions of over 30 percent. The category "other academic staff" has more than doubled since 1983. Over 90 percent of the positions in this category are temporary, as are all positions in the new category of "research trainees." The latter specific Dutch category of *Assistenten in Opleiding* and *Onderzoekers in Opleiding* was not included in the Carnegie survey. This category consists of junior staff members working on their Ph.D. theses. They can be compared to graduate students in U.S. higher education.

Women are clearly underrepresented in the professoriate, especially in the traditional tenured positions (table 12.3). As a result of societal developments and special affirmative action policies in the universities, women have been stimulated to start "the long march" through the universities. The starting point for this march is in most cases the category "other academic staff."

THE SURVEY

The sample for this study is drawn from the population of university academic staff in the Netherlands. In the Netherlands, the numbers of personnel per academic rank and per discipline at each university are known. Using these figures, we decided to draw a stratified probability sample encompassing 16 percent of the university academic staff. To make international comparisons possible it was decided, as noted earlier, not to include the research trainees in the sample, even though in the Netherlands they are considered part of the academic staff.[13]

All Dutch universities are included in the sample. With each of the thirteen universities an agreement was made that the questionnaires would be sent to the university personnel office and that this office would take care of the internal distribution of them. In the sample 2,661 respondents were drawn. In total, 1,364 completed questionnaires were returned, which implies a return rate of 51.2 percent.

A comparison of some important sample statistics with the statistics of the overall population of university academic staff in the Netherlands leads to the conclusion that the sample of 1,364 respondents forms a valid representation of that population (table 12.4). The distributions of rank and gender in the sample are quite similar to those in the actual population. Female academics are probably somewhat overrepresented because the sample is based on persons and not on full-time equivalents. Female academics more often work in part-time positions.

In the remainder of the chapter we will analyze some general characteristics of the Dutch professoriate, highlighting specific labor conditions, opinions, and activities per academic rank. We will concentrate in particular on the three main tasks of the professoriate—teaching, research, and service. Here, again, we will refer to the differences

Table 12.3

FEMALE UNIVERSITY STAFF

	1990		1991	
	FTES	% OF ALL STAFF PER RANK	FTES	% OF ALL STAFF PER RANK
Full professor	63	2.6	79	3.3
Associate professor or senior lecturer	144	6.1	147	6.1
Assistant professor or lecturer	949	15.7	990	16.3
Other academic staff	1,687	28.8	1,754	29.9
Research trainees	1,318	28.1	1,456	28.4
Nonacademic staff	7,964	38.6	8,293	39.6
Total	12,423	28.9	12,719	29.7

SOURCE: Dutch Ministry of Education and Science (DMES), *Hoger Onderwijs en Onderzoek Plan 1990* (Zoetermeer: DMES, 1990), 269.

Note: FTEs = full-time equivalents.

by academic rank. In addition, we will discuss two specific Dutch policy issues—that is, the changing position of women in the Dutch professoriate and the internationalization of university academic staff in the Netherlands.

Demographic Profile of the Professoriate in the Netherlands

Characteristics and Perceptions of the Respondents

The mean age of the academic staff involved in our study was forty-two years. Most are married (79 percent), with a majority of 59 percent having no children at home. Most Dutch academics work full time (72 percent) and have a tenured position (64 percent). The mean length of a part-time contract is twenty-seven months.

Table 12.4

SAMPLE (1992) AND POPULATION STATISTICS (1991) OF THE TOTAL ACADEMIC UNIVERSITY STAFF AND OF THE FEMALE STAFF, BY RANK (PERCENTAGES)

	POPULATION	SAMPLE	FEMALE POPULATION	FEMALE SAMPLE
Full professor	14.4	14.2	2.7	6.4
Associate professor	14.1	17.0	6.1	8.6
Assistant professor	36.3	36.3	15.7	18.0
Other academic ranks	35.3	29.5	28.8	36.2
Total	100	100	17.1	20.2
Total FTEs	(16,626)	(1,158)	(2,843)	(234)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

Note: The sample is drawn from a population of university academic staff. Each individual had an equal chance of becoming part of the sample. We have recalculated the composition of the sample in terms of full-time equivalents (FTEs).

About 10 percent of the respondents are of the opinion that their salary is poor. The average salary is the equivalent of $43,300 a year. Only 5 percent of Dutch academic staff have obtained a degree outside the Netherlands, so university academic staff working in universities in the Netherlands are very homogeneously Dutch. Most of them have a Ph.D. (75 percent), while about 25 percent have the equivalent of a master's degree, and less than 1 percent a lower degree.

Thirty-four percent of the respondents have worked at more than one university during their academic career, a low figure compared, for example, with German university professors of whom 78 percent have been regularly employed at more than one institution. About 6 percent of the respondents have also had an appointment at an institution of vocational higher education, *hoger beroepsonderwijs* (*HBO*).

In general, about half of the respondents have never had a job outside the university system (47 percent). In addition, 21 percent have no more than two years of work experience outside the university system. This implies that the majority of Dutch university academic staff have spent most of their working life in the Dutch university system. Those who have worked outside the university sector have on average worked for three years and one month outside the university system. At the time of the survey, the average Dutch academic had held an appointment for about twelve years at a university. The higher the rank the longer the mean stay in the university system. It can be concluded that in general the mobility of the Dutch professoriate is extremely low, with academic careers apparently being made inside the university system.[14]

Dutch academics take their academic positions seriously. Over the last two years only 5 percent of them did not attend a scientific conference. The average Dutch university academic staff member attends about four conferences a year, while over 93 percent are members of at least one scientific organization. Most of the respondents are members of two Dutch scientific organizations.

Some data concerning the personal characteristics of the Dutch university academic staff, by rank, can be seen in table 12.5. The first rank includes all full professors, and encompasses about 14 percent of the academic staff of universities. Their mean age is fifty-one, and more than 93 percent of them are male. A majority (82 percent) of full professors have full-time appointments with regular research, teaching, and management responsibilities.

About 15 percent of the professoriate has the rank of associate professor (*universitair hoofddocent*). In the Dutch university system a full professor is in most cases assisted by one associate professor and two assistant professors. This structure is roughly mirrored in the distribution of academics over these three ranks. The typical associate professor is forty-eight years of age, with over 90 percent of them being male.

Assistant professors (*universitair docenten*) represent 39 percent of the professoriate. Their average age is forty-two years. The percentage of females in this rank is larger than in the other two professor ranks, but still rather small (19.5 percent).

Table 12.5

CHARACTERISTICS OF UNIVERSITY ACADEMIC STAFF, BY RANK

	% OF TOTAL UNIVERSITY ACADEMIC STAFF	% FEMALE	AVERAGE AGE	AVERAGE SALARY A YEAR U.S. $ (THOUSANDS)	LENGTH OF APPOINTMENT (IN YEARS)
Full professor	13.9	6.5	51.5	70.3	19.9
Associate professor	15.4	9.3	48.1	55.8	19.8
Assistant professor	39.4	19.5	42.3	40.8	11.9
Research associate	22.5	39.3	34.3	27.4	5.8
Teaching associate	8.8	39.0	38.6	30.9	8.3
Mean	—	22.3	42.3	43.3	12.4
(N)	(1,338)	(1,328)	(1,330)	(1,307)	(1,311)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

Research and teaching associates form a relatively new phenomenon in Dutch higher education. They are not part of the traditional organizational structure of the university system. After the introduction in 1985 of the new system of academic ranks, universities started to appoint research associates for the duration of specific—in most cases, contract—research projects. Only a small number of them could hope for a shift to one of the three traditional academic positions after the completion of the contract.

In recent years fundamental research conducted in universities has shifted more and more to separate research units inside the university organization. In addition to the growing number of contract research projects, this development has caused the number of research associates to increase rather dramatically. At the time of the survey this rank constituted over 20 percent of the professoriate.

Recently, more and more research associates are being appointed for a longer period with no direct link to a specific research project. It can be argued that in the coming years the rank of research associate will become increasingly attractive as a separate career track inside the universities.

Research associates represent the youngest part of the professoriate with an average age of thirty-four years. As was mentioned above, most female academics start their academic careers in the category "other academic staff" (table 12.3). This is also illustrated by our survey data. Almost 40 percent of research associates, for example, are females.

Broadly speaking, the category of teaching associate consists of two kinds of academic staff members. The first is former associate professors (*wetenschappelijk hoofdmedewerkers*), of which about two-thirds became more or less redundant after the 1985 reorganization. Since most of them had tenured positions, those who were unable to profit from early retirement schemes became either assistant professors or teaching associates, in both cases keeping their tenured position, their high salary, and usually their former teaching and research tasks as well. The second consists of rather young staff members who after graduating (i.e., in most cases getting their master's degree) are appointed for a limited time to teach (especially in introductory courses). This second group can be found mainly in the natural sciences and engineering, and in faculties of law; the first can be found in all disciplines. Together, they constitute about 9 percent of the Dutch professoriate; their average age is thirty-nine years. Especially in the second group, the number of females is high, and, in fact, overall almost 40 percent of this rank are females. Given the traditionally heavy emphasis on research in universities, there is no room for a purely teaching-oriented career. Despite recent discussions on the neglected position of teaching in universities and the attempts to change this, there are no signs that the rank of teaching associate will become an attractive separate academic career track comparable to what has occurred with respect to the rank of research associate.

The Condition of the Professoriate

The average full-time appointment of a Dutch academic staff member formally calls for forty hours a week. In practice, the average academic workload is far greater (table 12.6). While classes are in session, staff work on average fifty-five hours a week—otherwise, about fifty-three hours per week.

While research associates, as might be expected, spend most of their professional time on research, with limited teaching obligations, teaching associates spend a relatively large amount of time on research. As was mentioned above, this can be explained by the research activities of the former associate professors.

In the three traditional ranks there appears to be a general tendency that as one goes up in rank involvement in teaching declines. The time spent on research is rather stable across ranks, as is the involvement in service. As regards the activities of full professors, it is remarkable that about 45 percent of their working time is devoted to activities other than teaching and research, traditionally the primary activities of the professoriate.

Perceptions Regarding Working Conditions

The questionnaire contained several items about the respondents' satisfaction with selected aspects of their academic jobs. The results are

Table 12.6

WORKING HOURS PER WEEK FOR FULL-TIME STAFF

	FULL PROFESSOR		ASSOCIATE PROFESSOR		ASSISTANT PROFESSOR		RESEARCH ASSISTANT		TEACHING ASSISTANT		ALL FACULTY	
	DURING CLASSES	NO CLASSES	DURING CLASSES	NO CLASSES	DURING CLASSES	NO CLASSES	DURING CLASSES	NO CLASSES	DURING CLASSES	NO CLASSES	DURING CLASSES	NO CLASSES
Teaching	20	12	22	13	26	13	8	6	24	13	21	12
Research	15	20	14	21	14	23	33	35	11	16	18	24
Service	6	5	7	7	5	6	3	3	6	5	6	6
Management	13	12	8	7	5	5	2	2	5	6	6	6
Other	7	7	4	5	3	4	4	4	6	7	4	5
Total hours	60	54	55	53	53	53	50	50	53	47	55	53
(N)	(140)		(169)		(340)		(218)		(47)		(857)	

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

presented in table 12.7. The scores should be interpreted as follows: a score lower than 3 refers to an average opinion on a specific job aspect from "fair" to "excellent." A score higher than 3 implies that an item is evaluated as being "poor."

The respondents are most satisfied with the intellectual atmosphere, the sense of community within the department, the possibilities for maternity leave, and the opportunities to attend conferences. Less satisfaction is reflected in the opinions on travel funds and reimbursement for taking courses. The academics for whom maternity leave and day-care centers are relevant are in the majority dissatisfied with the day-care facilities at their university. In addition, most respondents are dissatisfied with the possibilities for commuting reimbursement and sabbatical leaves. It is also striking that on average the respondents are dissatisfied about their future salary prospects.

The perceptions concerning working conditions appear to be related to age, gender, and rank. In general the older an academic the more satisfied he or she is with conditions. Female academics are somewhat more satisfied than male scientists. In the Netherlands, the higher the rank of the university academic, the more satisfied he or she is.

Perceptions Regarding University Facilities

In general, Dutch academics judge the facilities at their university to be "fair," "good," or "excellent." This is reflected in the mean scores shown in table 12.7, which are all lower than 3.0. Only a small minority are of the opinion that facilities for teaching are poor—for example, 11 percent are dissatisfied with classrooms. Similarly, only a small minority rate as "poor" facilities like technology for teaching (10 percent dissatisfied), laboratories (6 percent dissatisfied), research equipment and instruments (9 percent dissatisfied), computers (8 percent dissatisfied), and library holdings (8 percent dissatisfied). The respondents tend to be more negative about faculty offices (28 percent "poor" and only 5 percent "excellent") and secretarial support (26 percent "poor" and only 4 percent "excellent").

The questions concerning student quality indicate that the

Table 12.7

MEAN OPINIONS ON SELECTED ASPECTS OF THE JOB

	MEAN SCORE	TOTAL ANSWERS
OPINIONS ON SALARY[a]		
Satisfaction	2.4	1,333
Prospects of improvement within five years	3.2	1,213
OPINIONS ON BENEFITS AND CONDITIONS[a]		
Intellectual atmosphere	2.4	1,289
Relations between faculty members and administration	2.9	1,255
Sense of community within department	2.4	1,327
Possibilities for paid sabbatical leave	3.1	969
Travel funds for academics	2.8	1,252
Commuting reimbursement	3.1	803
Opportunity to attend conferences	2.5	1,300
Reimbursement for taking educational courses	2.7	1,064
Day-care centers	3.2	471
Maternity leave	2.5	442
OPINIONS ON QUALITY OF FACILITIES[a]		
Classrooms	2.5	1,223
Technology for teaching	2.5	1,147
Laboratories	2.3	623
Research equipment and instruments	2.5	828
Computer facilities	2.3	1,294
Library holdings	2.3	1,319
Faculty offices	2.9	1,335
Secretarial support	2.8	1,324
OPINIONS ON QUALITY OF STUDENTS		
Students currently enrolled[a]	2.5	1,065
Compared with students enrolled five years ago[b]	3.5	871

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

[a] "Excellent" = 1, "poor" = 4.

[b] Now high = 1, now low = 5.

professoriate is fairly satisfied with the quality of present-day students, but at the same time feels that the present generation of students is of somewhat lesser quality than the previous one. This opinion might be influenced by a structural reform—the two-tier structure introduced in the 1980s.[15] Since 1982, all first-degree (master's degree) programs in Dutch universities have a nominal length of four years. Before 1982, university programs were five to six years in nominal length.

The three reasons most frequently mentioned for staying in the present job are the content of the work (52.3 percent), the scientific reputation of the university (16.8 percent), and job security (15.5 percent). All other possible reasons are of minor significance. The most important reasons for leaving are limitations on promotion (mentioned by 28.4 percent), job security (17.8 percent), and the content of the work (14.1 percent).

Teaching

In the traditional profile of the Dutch academic, there are two tasks that are assumed to be equal in time commitment and importance—teaching and research. Other tasks, like management and service, are of more recent origin. In this section, we will report on the activities and perceptions of the Dutch professoriate with respect to teaching.

We have subdivided the data by academic rank, because each rank has its own responsibility for teaching. For the ranks of full professor, associate professor, and assistant professor, the formal assumption is that 50 percent of the nominal working time should be spent on teaching and 50 percent on research. As has been reported above (table 12.6), a full professor spends approximately as much time on teaching as on research, although both activities together represent only about 55 percent of all his or her professional activities.

The two other traditional ranks of the professoriate spend slightly more time on teaching than do the full professors, who are involved in teaching about sixteen hours a week. An associate professor spends about seventeen hours a week on teaching; an assistant professor about twenty hours, on average. For obvious reasons, the research associate spends considerably less time on teaching than do the other ranks—on average less than one day a week (seven hours per week). The teaching associate spends about nineteen hours on teaching.

About 18 percent of the respondents have not taught at all in the previous year (table 12.8, column with totals). This high percentage is mainly a result of the fact that research associates have no formal teaching responsibilities. Of all research associates, about 43 percent are involved in teaching (mainly of undergraduate students). Furthermore, the higher the rank, the higher the probability that the respondent has taught the previous year.

In addition to an overview of the involvement in teaching in the first part of table 12.8, the rest of this table presents data on the mean number of classes given per rank and on the various modes of teaching for first-year students. As was indicated earlier, many first-year classes (i.e., mainly seminars) are taught by teaching associates. Only 10 percent of research associates indicate they are involved in teaching freshmen; the third part of table 12.8 suggests that most of them are involved in seminars and laboratory supervision.

For the majority of the respondents belonging to the three traditional academic ranks, most of their teaching involves second-, third-, and fourth-year undergraduate students (*doctoraal studenten*). Most full professors (78 percent) involved in teaching first-year students give formal lectures.

The respondents were asked to indicate what they expected students to learn in their classes. The emphasis in courses for first-year students in Dutch universities is on the teaching of facts and the handling of theories (table 12.9). Courses for *doctoraal studenten* are focused on theories and on research methods and techniques. Less than 50 percent of the respondents indicate that these students should learn facts.

What are the activities teachers expect from students for completing a course successfully? In Dutch universities first-year students have to attend classes, write several short papers, and, most importantly, take one final examination (table 12.10). The latter is also demanded of *doctoraal studenten*. Contrary to the situation for *doctoraal studenten*, writing a major paper and making a formal oral presentation are rather unusual for

Table 12.8

OVERVIEW OF TEACHING RESPONSIBILITIES, BY RANK

	FULL PROFESSOR	ASSOCIATE PROFESSOR	ASSISTANT PROFESSOR	RESEARCH ASSOCIATE	TEACHING ASSOCIATE	TOTAL
TEACHING LEVEL (%)						
Undergraduates only	23	22	47	24	50	35
Graduates only	8	7	8	8	8	8
Both	67	65	38	11	24	39
None	2	5	7	57	18	18
(N)	(181)	(201)	(518)	(289)	(117)	(1,306)
MEAN NUMBER OF CLASSES						
Freshmen	0.5	0.6	0.7	0.1	1.5	0.5
Undergraduates	1.9	2.3	2.0	0.3	1.4	1.6
Graduates	0.8	0.7	0.3	0.1	0.3	0.4
(N)	(158)	(178)	(441)	(240)	(107)	(1,124)
MODES OF TEACHING FOR FRESHMEN (% OF TOTAL)						
Lectures	78	53	45	23	29	48
Seminars	14	23	34	42	53	32
Laboratory	4	10	11	28	7	11
Other modes	5	13	10	6	11	10
(N)	(65)	(77)	(211)	(30)	(54)	(437)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

Table 12.9

EXPECTATIONS ON WHAT FIRST-YEAR STUDENTS, UNDERGRADUATES, AND GRADUATES SHOULD LEARN (PERCENTAGES)

	FRESHMEN	UNDERGRADUATES	GRADUATES
Facts	77	45	30
Handling of theories, concepts, and paradigms	73	88	78
Research methods and techniques	38	79	81
Solving practical problems	33	64	70
Other	20	21	24
(N)	(614)	(920)	(539)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

Note: Percentages are calculated for faculty who mentioned at least one aspect for the category in question.

Table 12.10

ACTIVITIES REQUIRED OF STUDENTS FOR SUCCESSFUL COMPLETION OF A COURSE (PERCENTAGES)

	FRESHMEN	UNDERGRADUATES	GRADUATES
Regularly attend class	72	65	55
Write short papers	73	43	36
One major paper	12	56	51
Formal oral presentations	15	52	64
Participate in class discussions	32	52	65
Take single examination	85	79	39
Take two or more examinations	33	24	16
No specific requirements	1	1	4
Other requirements	5	7	14
(N)	(614)	(907)	(907)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

first-year students. In many courses, graduate students (i.e., the Dutch research trainees) have to participate in class discussions and make one or more formal oral presentations in order to successfully complete the course.

On the questions underlying tables 12.9 and 12.10 there were no significant differences in opinions and expectations between the various ranks of university academic staff.

Research

There are considerable differences among the five academic ranks with respect to research output and kind of output. In table 12.11 the average research output per year over the previous three years is presented.

Compared with the output of the other ranks, full professors are the most productive in writing scholarly books, articles in academic books or journals, and professional articles for newspapers or magazines. They are relatively unproductive in regard to editing scholarly books and writing computer programs for public use. Associate professors are the most productive in editing books. Presenting papers at scholarly conferences is, surprisingly, reported most frequently by teaching associates, followed by full professors and associate professors. The high output of conference papers by teaching associates may be explained by the characteristics of this rank. Of all ranks, research associates are most actively involved in producing research reports and monographs for funded projects. They also write on average more computer programs for public use than do the other ranks. Compared with the professoriate in the other European countries involved in the Carnegie study (i.e., Germany, Sweden, and England), the Dutch professoriate is very productive, with each rank preferring different scholarly means for publishing the results of its research activities.

On average, about 87 percent of the respondents are required to do research (table 12.12). It is striking that over 90 percent of teaching associates are actually engaged in research projects, while only 35 percent are required to do research. Again, this can be explained by the characteristics of this rank. Most research associates (66 percent) are involved

Table 12.11

MEAN RESEARCH OUTPUT PER YEAR, BY RANK

	FULL PROFESSOR	ASSOCIATE PROFESSOR	ASSISTANT PROFESSOR	RESEARCH ASSOCIATE	TEACHING ASSOCIATE	TOTAL
Total research output per year (averaged over last three years)	10.4	9.2	5.4	4.5	5.90	6.10
Scholarly books authored	0.32	0.21	0.18	0.10	0.14	0.18
Scholarly books edited	0.28	1.46	1.09	0.04	0.06	0.32
Articles in academic book or journal	4.93	3.39	2.34	1.45	1.11	2.57
Reports or monographs for funded project	0.52	0.47	0.42	0.88	0.37	0.54
Papers presented at scholarly conference	2.69	2.23	1.39	1.07	3.29	1.80
Articles for newspaper or magazine	1.31	1.10	0.49	0.47	0.25	0.67
Patents	0.03	0.02	0.01	0.01	0.01	0.02
Computer programs for public use	0.02	0.15	0.12	0.22	0.08	0.13
Artistic works performed or exhibited	0.06	0.06	0.04	0.07	0.15	0.06
Videos or films	0.03	0.07	0.04	0.02	0.04	0.04

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

Table 12.12

RESEARCH INVOLVEMENT AND RESEARCH FUNDING (PERCENTAGES)

	FULL PROFESSOR	ASSOCIATE PROFESSOR	ASSISTANT PROFESSOR	RESEARCH ASSOCIATE	TEACHING ASSOCIATE	TOTAL
Required to do research	95	97	88	93	35	87
Currently engaged in research	98	95	92	98	90	95
Government-funded research	92	86	73	28	46	66
Funded by NWO[a]	51	36	19	14	14	25
Funded by third parties	58	58	38	66	51	52
Other	21	18	15	14	32	17

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

[a] Netherlands Organization for Pure Research.

in contract research. Unlike the three traditional ranks, research associates are only to a limited extent engaged in regularly financed research projects, the so-called first-stream projects.[16] About 50 percent of full professors are involved in research funded by the Netherlands Organization for Pure Research (in Dutch, abbreviated as NWO), a body comparable to the U.S. National Science Foundation.

In table 12.13 an overview is given of the various forms of collaboration to be found in the research projects engaged in by university academic staff in the Netherlands. On average, between 48 percent and 60 percent of full professors and associate professors are engaged in research projects of which they are either sole or joint project director. Over 53 percent of all research associates are involved in research projects in which they are part of a team directed by someone else, while only about 13 percent are engaged in a research project of which they are the sole project director.

Service

An overview is given of the service activities of Dutch university academic staff (table 12.14). About 15 percent of full professors have been engaged in service activities for international government bodies like the European Union or the United Nations. This figure is between two and three times higher than the comparable figures for the other ranks. Also, the percentage of full professors having worked for the Dutch national government, business, industry, or other international organizations is slightly to considerably higher than the comparable figures for the other ranks. In general, it can be argued that the higher the rank, the greater the chance for involvement in service activities.

About one-third of the time spent on service activities is remunerated. This percentage is slightly higher for the newer ranks and slightly lower for the rank of associate professor.

In general, the respondents are very positive about service activities. A large majority (87 percent), for example, agree with the statement that academics have an obligation to apply their knowledge to problems in society. There are no significant differences between the ranks as regards their opinions on service activities.

Table 12.13

FORMS OF COLLABORATION IN RESEARCH (PERCENTAGES)

	FULL PROFESSOR	ASSOCIATE PROFESSOR	ASSISTANT PROFESSOR	RESEARCH ASSOCIATE	TEACHING ASSOCIATE	TOTAL
Sole project director	56	49	20	13	29	29
Joint project director	60	55	22	15	27	32
Part of team directed by someone else	19	27	32	53	22	34
Part of team with no explicit director	11	17	26	21	20	21

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

Table 12.14

ACTIVITIES AND PERCEPTIONS CONCERNING SERVICE, BY RANK (PERCENTAGES)

	FULL PROFESSOR	ASSOCIATE PROFESSOR	ASSISTANT PROFESSOR	RESEARCH ASSOCIATE	TEACHING ASSOCIATE	TOTAL
TYPE OF SERVICE						
Business or industry	31	31	23	15	16	23
Educational institutions	25	27	28	18	26	25
Local/regional government	12	13	12	7	14	11
Dutch government	32	24	14	13	10	17
International governments (European Union, United Nations, etc.)	16	9	7	6	5	8
Other international organizations	11	7	4	4	3	5
Others	19	23	19	15	19	19
Time spent on paid service	31	25	33	41	42	33
STATEMENTS[a]						
Scientists have an obligation to apply their knowledge to problems in society	84	87	87	87	88	87
Service activity beyond the institution is a distraction	11	12	12	12	6	11
For economic reasons consulting work is necessary	18	15	15	12	21	16

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

[a] The percentages given in this section are of the respondents agreeing with the statements.

Academic Culture

In the questionnaire, academics were asked for their opinions on the importance of their discipline, their department or faculty, and their university. The differences in their opinions are striking. Only 5 percent of the respondents are of the opinion that their own field is not at all important, while 53 percent think their university is not at all important. A majority—76 percent—hold the opinion that their department or faculty is rather or very important. Apparently the typical Dutch university academic identifies first with the discipline, then with the department, and finally with his or her university.

Only a small minority of 7 percent of the respondents think the intellectual atmosphere in the university is poor. Academics do not differ by rank or gender on this opinion. In contrast, 23 percent think that the relationship between the central university administration and academics is poor, and a very small proportion of only 3 percent think this relationship is excellent, with the higher ranks being more negative about this relationship.

The cohesiveness within the department of the respondents is poor, according to 15 percent of them. This is almost as high as the proportion who think the cohesiveness is excellent.

A majority of Dutch academics would again choose an academic career in the same discipline if they had it to do all over again (table 12.15). Also, on average, the respondents agree with the statement that this is an especially creative and productive time in their field. As a consequence, the majority disagree with the statement that this is a poor time to start an academic career in their field.

SPECIFIC TOPICS CONCERNING THE DUTCH PROFESSORIATE

Female Participation in the Dutch Professoriate

The number of female academics in the university system of the Netherlands is on the rise. Not only has the number of female students grown significantly, women now also increasingly participate as members

Table 12.15

OPINIONS ON DISCIPLINE AND CAREER

	MEAN SCORE	TOTAL ANSWERS
This is an especially creative and productive time in my field.	2.2	1,341
This is a poor time to begin an academic career in my field.	3.4	1,280
If I had it to do over again, I would not become an academic.	4.0	1,275

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

Note: On a scale from 1 = totally agree, to 5 = totally disagree.

of the professoriate. Since the end of the 1980s, both the Dutch government and the universities have introduced affirmative action programs. Women are explicitly invited to apply for university academic positions. However, at the time of the survey, women were still clearly underrepresented in the professoriate. Of the respondents in our study, only around 20 percent were females.

The study revealed a number of aspects of the special position of the female academic staff in Dutch universities (table 12.16). The first is gender differences in the mean number of years members of the university academic staff are employed in their university. With the exception of the situation for full professors, women have, in general, been employed for a shorter time at their university than have men. The number of female professors included in the sample is, however, too small to draw any conclusions as regards the position of female full professors.

A second aspect of the special position of women can be found in the percentage of female staff having a part-time appointment. Over 50 percent of all women represented in our study have a part-time appointment.

Table 12.16

EMPLOYMENT AND AGE, GENDER, AND RANK

	FULL PROFESSOR	ASSOCIATE PROFESSOR	ASSISTANT PROFESSOR	RESEARCH ASSOCIATE	TEACHING ASSOCIATE	TOTAL
MEAN NUMBER OF YEARS EMPLOYED						
Female	21.7[a]	17.0	10.5	4.8	6.4	8.5
Male	19.8	19.1	12.2	6.2	9.5	13.5
PERCENTAGE OF PART-TIME APPOINTMENTS						
Female	16.7[a]	31.6	50.0	52.2	77.8	52.9
Male	16.0	8.2	23.0	26.9	45.8	21.2
MEAN AGE						
Female	50.2[a]	48.3	40.9	32.7	36.8	37.9
Male	51.6	48.1	42.7	35.4	39.7	43.6

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

[a] Although the number of female full professors in the sample (12) is too small for any conclusions to be drawn, for the sake of completeness the data are included in the table.

The third aspect concerns the mean age of university academic staff. Women are on average younger than the men in their ranks, with the exception of the rank of associate professor. One of the reasons for this difference in age composition may be found in the affirmative action programs of government and the universities.

A final aspect (tables 12.3 and 12.4) of the special position of women is their relatively high representation in the newer academic ranks (i.e., research and teaching associates). In both categories, about 40 percent are women.

Women tend to be employed for shorter periods than men in all indicated disciplines (table 12.17). Also, in these disciplines, women appear to have far more part-time positions than do men. Moreover, in disciplines such as the humanities (27 percent), social sciences (33 percent), law (29 percent), and health care (27 percent), women are relatively well represented on the academic staff. In economics (6 percent), agriculture (8 percent), engineering (10 percent), and the natural sciences (13 percent), the number of women on the academic staff is much smaller.

INTERNATIONALIZATION IN DUTCH HIGHER EDUCATION

Attitudes Toward Internationalization

A majority of the respondents agree strongly with the statements that "connections with scholars in other countries are very important" (53 percent strongly agree; only 8 percent disagree) and "[it is] essential to read books and journals published abroad" (85 percent strongly agree; only 2 percent disagree). A large number of respondents also strongly agree with the statements that "international mobility of students should be promoted" (34 percent strongly agree; only 5 percent disagree) and "international mobility of faculty should be promoted" (48 percent strongly agree; only 2 percent disagree). As shown in table 12.18, the higher the mean score, the more positive the respondent is on the subject of internationalization. This is confirmed by a measurement of association

Table 12.17

EMPLOYMENT AND AGE, BY SEX AND DISCIPLINE

	SCIENCES	ENGINEERING	HEALTH CARE	LAW	SOCIAL SCIENCES	HUMANITIES
MEAN NUMBER OF YEARS EMPLOYED						
Female	11.2	6.9	7.9	8.8	8.0	7.6
Male	19.8	14.2	12.3	11.1	13.7	13.6
PERCENTAGE OF PART-TIME APPOINTMENTS						
Female	43.3	50.0	42.7	26.3[a]	68.3	68.9
Male	11.3	16.7	21.9	22.4	28.3	31.2
MEAN AGE						
Female	39.8	35.4	36.4	39.7	37.5	40.0
Male	45.5	44.9	42.2	40.5	43.6	44.1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

[a] The difference is not statistically significant at the 5 percent level.

Table 12.18

ATTITUDES TOWARD INTERNATIONAL CONTACTS IN HIGHER EDUCATION, BY RANK (MEAN)

	FULL PROFESSOR	ASSOCIATE PROFESSOR	ASSISTANT PROFESSOR	RESEARCH ASSOCIATE	TEACHING ASSOCIATE	TOTAL
Contact with foreign researchers is important	4.5	4.5	4.2	4.1	3.9	4.2 (1,301)
Essential to read foreign contributions	4.9	4.9	4.8	4.7	4.6	4.8 (1,334)
International mobility of students should be encouraged	4.0	4.1	4.0	3.9	3.8	4.0 (1,313)
International mobility of faculty members should be encouraged	4.4	4.4	4.3	4.2	4.1	4.3 (1,329)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

Note: On a scale from 1 = "strongly disagree" to 5 = "strongly agree"; the figures in parentheses are the number of respondents.

(Somer's D, which is positive and significant at the 5 percent level). So there is a tendency that the higher the rank the more positive one is about international contacts.

The Netherlands has a long tradition of educating foreign students. These students came mainly from former colonies or from developing countries. The language of instruction for these students was in most cases Dutch. Most of these students enrolled at the University of Leyden or the Agricultural University of Wageningen. This has changed rather dramatically since the Dutch government implemented a program to promote internationalization,[17] the result being increased foreign student enrollment in all universities.

The respondents were asked to indicate their international activities in teaching over the previous three and ten years. From the responses to these questions we have distilled the activities on internationalization per year over several time periods. The data on the earlier period give an indication of the activities before the introduction of the governmental policy to stimulate internationalization in higher education (table 12.19).

There has been a sharp increase in the teaching activities involving foreign students. Associate professors are especially active in teaching foreign students. It is remarkable that teaching associates are hardly engaged in international education. Teaching foreign students is clearly an activity in which the traditional ranks of the professoriate are actively engaged.

CONCLUSION

Dutch higher education is "on the move." In the current transition period, the Dutch professoriate is also undergoing alterations. First, since 1985 two new ranks have been introduced in Dutch higher education—research associate and teaching associate. The number of research associates has increased and now comprises over 22 percent of the professoriate. As a consequence of the changing organizational position of basic research in the universities in the Netherlands, the position of research associate is becoming increasingly attractive as a separate career track within the university sector.

Table 12.19

INTERNATIONAL TEACHING ACTIVITIES PER YEAR, BY RANK (MEAN)

	FULL PROFESSOR	ASSOCIATE PROFESSOR	ASSISTANT PROFESSOR	RESEARCH ASSOCIATE	TEACHING ASSOCIATE	TOTAL
Classes of foreign students 4–10 years previously	0.04	0.05	0.10	0.00	0.07	0.06
(N)	(174)	(198)	(430)	(152)	(71)	(1,025)
Classes of foreign students 0–3 years previously	0.42	0.75	0.38	0.15	0.08	0.34
(N)	(186)	(206)	(527)	(296)	(118)	(1,333)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of the Netherlands).

Note: Corrected for the duration of the contract.

Second, the share of women in the professoriate is increasing. Among other things, through affirmative action programs, the number of women holding an academic position in a Dutch university has been growing by more than 1 percent a year, while at the same time the number of male academics has declined. Female academics typically start in one of the nontraditional academic positions as a research or teaching associate. It can be expected that in the coming years a number of them will transfer to one of the traditional positions—full, associate, or assistant professor. However, it is doubtful whether the number of women promoted to these positions will be a significant one.

Third, internationalization has become one of the main aspects of government higher education policy in the Netherlands. It has already influenced the orientation of Dutch university academic staff considerably, and its importance will continue in the coming years, in teaching as well as in research.

As a result of recent changes in government policy, Dutch universities have become more autonomous with regard to personnel policies.[18] If the universities themselves are given autonomous status, academics would no longer be considered civil servants. Consequently, the reward structure for the professoriate could change significantly, and personnel policies could become more performance oriented.

Göran Blomqvist, Hans Jalling, and Karsten Lundeqvist

The Academic Profession in Sweden

WHEN SWEDEN's first university was founded in Uppsala in 1477, both church and state contributed financial resources and privileges. The next university, the University of Lund, opened its gates in 1688 as a state initiative. In the nineteenth century, higher education expanded in the two major cities of the realm: in Stockholm, the two professional schools—the Karolinska Institute (medical) and the Royal Institute of Technology (not to be confused with the Royal Army School of Technology)—were granted university status by the government. It was left to private interests—the good burghers of Stockholm and Göteborg—to found university colleges offering a liberal arts education.

After World War II, there was widespread belief that research should solve all the problems of modern society, which, of course, motivated an increase in government funding. However, in the 1950s, there were also significant increases in undergraduate enrollments in the universities. In 1961 there were 37,500 undergraduate students; by 1979, this figure had risen to 125,000. A large number of undergraduate programs in Sweden—particularly within the (former) Faculty of Philosophy—had unrestricted enrollments. To cater to all these students, the government decided to establish new institutions of higher learning all over the country to accommodate the growing numbers of undergraduate students within the faculties of arts, and the social and natural sciences.

During the 1960s, the interest of politicians and administrators was directed toward increasing the efficiency of mass higher education, and in particular, to shortening the total time students spent studying. One unfortunate result was the atomization of disciplines into small study units, in some cases lasting no more than one week (giving "one credit point"). The wish to speed up programs of study also lay behind the new postbaccalaureate program, which came into being in 1969: Sweden abandoned the traditional doctoral thesis—based on the licentiate, in the German tradition (*Dr. habil.*)—in favor of the American style Ph.D., which combined teaching and research.

In 1975, there were six universities and ten professional schools with established research foci. Three university branches offered undergraduate degrees only, and about eighty colleges were training potential teachers, social workers, journalists, paramedical staff, etc.[1] This system was the result of a historical process and it was very heterogeneous. A 1975 decision in the *Riksdag* introduced a new ("rational") system of higher education. Under the new system, higher education was to be *homogeneous* and include *all* postsecondary degrees. It would above all else satisfy the needs of the labor market and would therefore also include programs involving less than three years of "academic" study. Admission to higher education was to be restricted (*numerus clausus*).[2] At the same time, new principles of representation institutionalized the influence of students and of employees, in addition to the academic staff. Traditional systems of governance within the institutions and departments were of little significance; under the new concept, external representatives—of society (politicians), of the "public interest" (trade unions), and of the professions—were to sit on all planning committees and governing bodies. These changes in the composition of the governing bodies were linked to a limited decentralization of decision making, mostly concerning finance, in a period of shrinking grants to higher education. Although the 1977 reform, as it has been labeled, involved a number of innovations, the continuity is remarkable. Areas in which this continuity can be seen include: government control of higher education; the division between undergraduate programs, on the one hand, and research and postgraduate teaching, on the other; and the geographical distribution of higher education. The desire to eliminate inequality made it easier to integrate additional vocational training programs into the realm of higher education.

The 1980s were a period of consolidation for the higher education system. The resources available to undergraduate programs diminished in real terms, while research was given increased resources: in 1989/1990, two-thirds of overall government funding was linked to research. As a consequence, research rose even more in esteem under the new unitarian system. All in all, the differences between universities and the newer and smaller institutions ("university colleges") became both more numerous and more obvious during the 1980s.

Between 1984 and 1986, the *Riksdag* reorganized the system of academic posts, reducing scores of different categories to four: *professors* (chair-holders), *senior lecturers, research assistants*, and *junior lecturers*. The duties of each category were defined with Swedish precision. In the early 1990s, the institutions were allowed to establish and fill all categories of posts and to decide on salary levels after negotiations with the local trade unions.

The system of higher education based on vocationally oriented degrees, introduced in the 1977 reform, is now being phased out in favor of first-degree programs allowing a wide choice of subjects and specialties. A new system of budgeting for three-year periods has stimulated centralization; in fact, the government now sets only the total volume of higher education funding. Today, the institutions receive a mandate—or, a contract with the state—to educate a specified number of students. As a part of the 1993 reform, the funding of institutions—which hitherto had been directly related to student numbers—will be supplemented, depending on the number of students actually finishing their studies.

Reforms of the upper-secondary school system and an increased demand for skilled labor lay behind the increase in student numbers in the 1960s and 1970s. In 1977, the government thought it necessary to restrict admission to higher education; in other words, Sweden chose the extraordinary combination of mass higher education and restricted admissions. Already in 1960, adults over the age of twenty-five had become eligible for higher education if they had five years of work experience and met the specific entrance requirements of a given program; traditionally, graduation from a three- or four-year program in the upper-secondary school was required for university entrance. The 1977 reform turned this experiment into law—and raised the average age of new students admitted to twenty-three years. At the same time, with a growing number of people eligible for higher education and an almost unchanged number of student places, the system became, in fact, more selective. In 1980, the enrollment was 158,280 students; five years later, the figure had only increased to 162,927.

From 1982 onward, however, admission rules have been altered to favor young applicants. It should be noted that the average age of those receiving their first degrees in Sweden is very high, from an international perspective: age twenty-eight at the beginning of the 1980s, and age twenty-six at the beginning of the 1990s. Just under 40 percent of those leaving upper-secondary school have enrolled in higher education within three years of school-leaving—a percentage that rose in the early 1990s because of the difficult labor market. It should also be noted that the 1990s have seen a dramatic increase in the number of student places: in 1990, 173,381 students were enrolled in Swedish institutions of higher learning. In 1992 there were more than 35,000 additional students (209,293).

As pointed out earlier, the state established firm control over the composition of the governing bodies in the 1970s. The principle of professionalism lost ground to the principle of representation. In Sweden the professional perspective has been vital: only those who belong to the profession and who have gained the respect within the profession can assume leadership. With the 1993 reform, however, there is good cause to speak of a return to power of the professors. Recent legislation has made it obvious that it is from their ranks that heads of departments, chairpersons, and deans are primarily selected. Again, it should be noted that, in the 1993 reform, professional influence is balanced against a new management approach: a monarchical model that gives the president (rector) and the institution's governing body the legal authority to make virtually all decisions—that is, the president (rector) may nullify decisions taken by a head of department or dean.

Presidents (rectors) are appointed by the government after a formal election procedure; the government is ipso facto bound by the outcome of the election. Under the new system, the university administration may delegate powers to boards, departments, or their chairpersons; in contrast to the limited use of delegation in the 1970s, the institution has the authority to decide on all matters except the overall dimensions of higher education in the country. Deregulation is the current watchword.

THE INSTITUTIONS

According to 1992 figures, Swedish state-run universities employ a total staff of approximately forty-three thousand individuals, if all types of posts are included. This is the equivalent of thirty-six thousand full-time posts. In the period from 1984 to 1992, there has been only a slight change in the numbers employed—in spite of an increase of more than fifty thousand student places. While the increase is only about a thousand individuals, or 2 percent, converted to full-time equivalent posts, it means an increase of 9 percent. Again, one should note that this modest increase conceals an ongoing structural change: the number of administrators has declined while the number of teachers and researchers has risen. In 1992, academic staff constituted more than 57 percent of those employed, while the same figure for 1984 was less than 55 percent. As of 1993, Sweden had the following state-run institutions of higher education: thirteen universities and vocationally oriented institutes of higher education, eight colleges of fine arts, sixteen medium-sized university colleges, and two research institutes.

In addition, there is an independent School of Economics (in Stockholm), three smaller university colleges offering training in social work, and about twenty or so municipal colleges offering training for nursing and the paramedical professions. At the moment, higher education in Sweden is undergoing a series of reforms. One of the institutes of technology, Chalmers University of Technology, and one of the smaller university colleges in Jönköping will change from their state-run status to incorporation as trusts. The Jönköping University College will also become a research institution, with the Jönköping International Business School as one part. In addition, a number of the colleges that are currently municipal colleges will be integrated into the state-run system, while others will become trusts. The rationale behind the various reforms is that the Swedish government wants to increase pluralism in higher education in order to create greater competition between the different institutions.

In this study, however, only the state-run universities and institutes of higher education are included; they comprise by far the largest sector of higher education. The universities and institutes of higher education vary greatly both in size and in tradition. Lund University is the largest in Sweden, with a staff of 5,300 and a student body of 26,000. Uppsala University is the oldest, founded in 1477, with a faculty of 4,100 teachers and 18,100 students. The smallest and newest is Stockholm University College of Physical Education and Sports; founded in 1982, it has 40 teachers and 200 students. Around 90 percent of those employed in higher education are employed at the thirteen largest universities and vocationally oriented institutes.

The number of students entering higher education has increased considerably during recent years—by just under 10 percent each year, on average. Student numbers are increasing in more or less every discipline, but engineering and technology are those with the largest increases. Several explanations can be given for the vigorous expansion of higher education. The Swedish government and the *Riksdag* have, for instance, stated explicitly that higher education should expand—one argument being that Sweden has far too few university graduates in its workforce, compared with other developed countries. Another reason is an unemployment rate that is, in Swedish terms, high. During the last two years, around 10 percent of the labor force has been out of work, and a large proportion of young people are unemployed. The number of students in tertiary education in Sweden today is about two hundred thousand.

THE ACADEMIC PROFESSION

The following profile provides necessary background concerning the nature of the Swedish academic profession and the various ranks and positions within it (table 13.1).

An overwhelming majority of professors in Sweden have a Ph.D.—

Table 13.1

NUMBER OF UNIVERSITY TEACHERS AND RESEARCHERS, BY TYPE OF APPOINTMENT

	1991	1992
Professor	2,025	2,061
Senior lecturer	4,463	4,700
Assistant lecturer	5,148	5,685
Research assistant	910	1,017
Special research appointments	2,851	1,900
Total	15,397	15,363

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

almost 90 percent. There is no absolute requirement, however, that a professor should have a doctorate, and (mainly in the fields of engineering and the fine arts) there are professors whose academic qualifications derive from activities other than the completion of a thesis and continued research within the academic world. The duties of professors vary widely and depend upon the faculty and the university in which they work. A general description of these duties would, however, include research, teaching, the supervision of doctoral students, and administration. Within the faculties of law, for instance, many professors are engaged in teaching in undergraduate programs. In the humanities and the social sciences, as a rule, professors carry on their own research, supervise research students, and are involved in administration; they are involved in teaching undergraduates only to a very limited extent. The engineering faculties are large in comparison to the other faculties, and in them one can find professors fully engaged, to varying degrees, in teaching, supervision, administration, and research. Professors in Sweden have varied duties but their work is primarily directed toward research.

Just over 80 percent of senior lecturers have doctorates, and the latest ordinance governing higher education in Sweden assumes that a senior lecturer must have a doctorate if he or she is teaching in a field in which there are doctoral programs. The 20 percent of lecturers who do not have doctorates are to be found primarily in fields in which doctoral programs do not exist or exist only rarely, such as the fine arts and education. Some senior lecturers without doctorates were granted tenure during periods when the lack of a doctorate could be outweighed by long experience in teaching, among other factors. This practice has now been discontinued.

Senior lecturers, like professors, have varied tasks. It is not unusual for senior lecturers to spend all their time teaching, and those senior lecturers who do so are to be found most frequently at the smaller university colleges that lack basic resources for research of their own. At the vocationally oriented institutes of higher education and the universities, the norm for many senior lecturers is to have a position that combines responsibilities for research, supervision of research students, teaching, and, to a lesser extent, administration. The Swedish senior lectureships were established during the mid-1950s, and applicants were required to have a doctorate. However, and here Sweden must have been unique in the history of European universities, senior lecturers were expected to spend all their time teaching—and an overwhelming proportion of this teaching took place within undergraduate programs. During the latter half of the 1970s, the system of positions within higher education was reformed, giving senior lecturers the opportunity to combine research and teaching.

As a rule, junior lecturers do not have doctorates. This type of position evolved from the mid-1970s, when a number of educational programs that had previously lain outside the university system were brought within its fold. The large number of junior lecturers has been both the reason for, and a consequence of, the relatively low proportion of students taking doctorates in Sweden over a long period of time. In some subjects there has been a dearth of teachers with doctorates, necessitating the appointment of those without the qualification. At times, however, the availability of junior lectureships has led young researchers to abandon their doctoral studies, with all the uncertainty involved, to take a post giving them greater financial rewards and job security than they had as research students. Added to this is the fact that wage differentials between senior and junior lecturers have on average for a long time been as low as 10 percent.

There have been attempts to induce more junior lecturers to complete their doctorates in an effort, on the part of government, to raise the quality of higher education and to confirm the important link between teaching and research at all levels within tertiary education. For many reasons, however, realizing the government's desire for an absolute majority of university teachers to have doctorates will take a long time. To begin with, Swedish universities still have limited capacity when it comes to awarding doctorates. Another reason is that the majority of junior lecturers have permanent posts, and today's junior lecturers will not have reached retirement age until well into the next century. Junior lecturers spend an overwhelming preponderance of their time teaching. Administration occupies a smaller percentage of their time, as does research.

Research assistantship positions and other research appointments can vary widely in character—this is particularly true of research appointments—but they share certain features. The posts are to a great extent devoted to research and are often for fixed periods. A research assistant must have a doctorate and is expected to teach only a few hours. The aim of the post is to give the newly qualified Ph.D. the opportunity to qualify for a post as a senior lecturer. The period of appointment is limited to six years. There are a number of other kinds of research appointments—such as posts for researchers who have not yet earned their doctorates and who are working as technicians, or the like, on various research projects. Some of these researchers are working on their own theses; some teach, while others do not.

ANALYSIS OF THE RESPONSES

The Swedish steering committee decided to distribute the questionnaire in English, but added translations of the terms that might otherwise have given rise to misunderstanding. The total population from which the sample could be selected was provided by the government's register of salaried teaching faculty and research workers (with the exception of members of the medical faculty) at Swedish universities and institutions of higher education in 1991 (table 13.1)—a total of fifteen thousand individuals. A random selection of twenty-five hundred individuals—representative from the point of view of types of positions and types of institutions—constituted the database for this study. About 48 percent of those selected responded to the questionnaire after the second reminder had been sent.

In the rest of this chapter respondents to the questionnaire will be classified under the following three categories: professors, senior lecturers, and other research appointments. The responses of junior lecturers to the questionnaire will be presented only in certain cases because a large number in this category failed to respond—more than 60 percent. Moreover, the junior lecturers are, from an international perspective, something of an anomaly. Some of them entered higher education at a time when nonuniversity sectors of the educational system were being amalgamated into university programs at the end of the 1970s. Others are former Ph.D. students who have stayed in the system without completing their degrees. There have also been a number of new appointments, the majority of them in programs that were not previously regarded as university-level.

Distribution by Sex and Age

There is an uneven distribution among male and female Swedish university lecturers, and this varies markedly across ranks and from faculty to faculty. Of the professors, 94 percent are men—only 3 percent of the professors in the faculties of engineering are women. There is a strong predominance of men among senior lecturers as well—80 percent. In faculties involved in education and the humanities there is a certain preponderance of women among junior lecturers. During the next decade, the overwhelming majority of professors and senior lecturers will be recruited from among persons who have held the position of research assistant. It is therefore relevant to compare the distribution of women in this group with the present distribution of women professors in order to see likely future trends (table 13.2).

Table 13.2

PERCENTAGE OF WOMEN IN ACADEMIC POSITIONS

	PROFESSORS		SENIOR LECTURERS		RESEARCH ASSISTANTS	
	1977	1990	1977	1990	1977	1990
Humanities	11	20	43	36	31	43
Social sciences	1	7	18	23	14	18
Natural sciences	3	4	16	13	9	16
Medicine	3	5	27	24	6	27
Engineering	2	3	5	6	6	5

SOURCE: *Utbildnings departementet*, Stockholm 1994.

This gender imbalance is being redressed, but the process will be a slow one. In recent decades, the proportion of men and women in doctoral programs has become more equal. Thus, assuming that men and women are appointed on an equal footing regardless of gender, in about twenty years there should be a better gender balance in several different disciplines. However, this assumption may not be justified, for relatively speaking, fewer women than men are appointed to senior posts within higher education.

Within the faculties of engineering and the natural sciences, women constitute about 30 percent of doctoral students. As there are few holders of doctorates in engineering to be found outside higher education, the overwhelming majority of the university faculty of tomorrow will have to be recruited from today's doctoral students. This means that if there is no active discrimination against men when it comes to appointments, the gender imbalance in these faculties will persist. At present there is strong resistance among university teachers, even among women, to the concept of affirmative action in making appointments to posts within male-dominated areas.

The government, trade unions, and administrative authorities in higher education are all in their different ways working to promote a more even gender balance by influencing public opinion. But, for various reasons, the changes are taking place slowly. First of all, it is difficult to influence people's attitudes. A contributing factor is that the rungs on the career ladder in higher education in Sweden are widely spaced, and there is little room at the top. In a system with fifteen thousand teaching posts, there are only two thousand full professorships. Therefore, even if there were an absolute gender balance in the recruitment to doctoral programs, and no gender discrimination in appointments to senior posts within Swedish universities and institutions of higher education, it would take a very long time before the balance between men and women evened out.

The rapid expansion of the Swedish universities and institutions of higher education in the 1960s entailed massive new recruitment of young teachers and researchers. Since then the rate of recruitment has fallen markedly, which has led to a biased distribution by age among teachers and researchers. About 50 percent of professors were born in the 1920s and 1930s. An overwhelming proportion of senior and junior lecturers were born in the 1940s. Among the research assistants, there is a preponderance of those born in the 1950s, as is also the case with other research appointments.

This uneven age distribution is likely to create problems in higher education around the year 2005 and thereafter, as there will be a large number of retirements at that time. Politicians have clearly expressed their intention to increase the number of students taking doctorates, and this is already occurring. It is, however, difficult to say whether this increase is a permanent one or due merely to the present difficult situation in the labor market. Even if the increase in the number of doctorates being awarded is a permanent one, there are still few posts for the new graduates. Therefore, when large numbers of today's university faculty reach retirement age, there could well be a shortage of suitably qualified staff with doctorates in a number of areas.[3]

WORKLOAD

The reform of higher education in the 1970s made it possible for all categories of teachers to combine research with teaching. This did not mean, however, that all categories of teachers were able to allocate their time in similar ways. The teaching loads of university teachers are governed by a contract between the government as employer and the trade unions representing university staff. This contract stipulates a "ceiling" for the teaching expected of the different ranks. For professors, this ceiling is 115 student contact hours per year, and for senior lecturers it is 400. For the different types of research appointments, the ceiling ranges from fifty hours per academic year upward (table 13.3).

The contract in force at the moment does not stipulate that a teacher must fulfill his or her obligations solely in the form of teaching; teaching obligations can be replaced by research or administrative duties. However, as teaching is the only aspect of the duties of university teachers that is regulated in detail, the concept of "ceiling" is often confused with "regular workload," and, particularly at the smaller institutions without a basic research organization of their own, a senior lecturer can discharge his or her obligations by teaching 400 hours during an academic year, a junior lecturer by teaching 630 hours.

It should also be noted that Swedish university academics have a tendency to work (unpaid) overtime. The average working week within the civil service—which includes academic staff, in Sweden—is forty hours per week with a "normal" overtime of 2 to 3 percent. Professors claim, on average, 23 percent overtime and senior lecturers 8 percent. On the other hand, as professors and senior lecturers compare themselves to senior civil service management, this is not surprising: few (if any) civil service directors have a workload of less than fifty hours per week. Few university teachers have posts in which the bulk of their work (more than 90 percent of the total number of working hours) consists of teaching and ancillary activities—3 percent of professors and 9 percent of senior lecturers.

The questionnaire does not contain questions as to how the respondents' teaching commitments relate to the contractual ceiling. But there is a question concerning the number of hours per week the respondents spend in a seminar room or a laboratory with students—in other words, the time spent on classroom teaching. There are considerable differences among the different categories of faculty in the number of hours spent on classroom teaching. Of professors, 50 percent teach

Table 13.3

ALLOCATION OF TIME PER WEEK AMONG DIFFERENT ACTIVITIES (PERCENTAGES)

	DURING TERM			OUTSIDE TERM		
	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Teaching	22	39	26	9	14	6
Research	35	31	50	46	51	66
Service	10	9	7	11	10	9
Administration	23	15	10	21	16	12
Other	11	6	7	13	9	7
Total hours per week	49	44	43	48	42	45

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

more hours than stipulated in their contracts, as do 25 percent of senior lecturers. Within all staff categories, only relatively small groups have no teaching at all.

Work designated as supervision also varies in extent, both within and between the different categories. On average, professors do more supervising than other groups. Senior lecturers, on the whole, do somewhat less, and researchers the least. It is natural that persons in this last category have the least contact with students as their posts are to a considerable extent devoted to their own research. It would be reasonable to assume that those teachers who spend the most time in the classroom do little supervision and vice versa; however, this is not the case. If the covariation between hours of classroom teaching and supervision each week is examined, no relationship between the two variables will be found—Pearson's coefficient of correlation is close to zero for all groups.

There is an obvious pattern in the allocation of working hours of university teachers between undergraduate and graduate programs. The number of professors who spend all their time in undergraduate programs is negligible, contrasted with the one-third of senior lecturers who do so. More than 20 percent of professors teach only at the graduate level. With the exception of those holding research appointments, only a few teachers have no teaching or supervision duties at all (table 13.4). There are a number of factors that affect the quality of teaching, positively or negatively. All categories of teachers consider that administrative duties have a negative effect on their teaching.

There is an interesting relationship between the attitudes of university teachers regarding the effect of administrative duties on their ability to teach and the extent of their administrative responsibilities. The professors reporting a very negative effect are those who, on average, spend more time on administration than on teaching—with 70 percent considering that administrative duties have a negative effect on their teaching compared with 46 percent of senior lecturers and less than 40 percent of those with research appointments. Within each group of teachers the relationship between attitude to administrative duties and the number of hours spent on them can be represented as a U-shaped curve.

This curve could be interpreted to mean that a small group of

Table 13.4

DISTRIBUTION OF TEACHING RESPONSIBILITIES, BY LEVEL OF PROGRAM

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Graduate and undergraduate programs	74	59	43
Graduate programs	21	6	10
Undergraduate programs	2	30	20
Neither level	3	5	27

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

university faculty members enjoy administration and take on more such work than the average. Then there is an intermediate group that is reasonably satisfied with the number of hours of administration it had. Finally, a relatively large group reacts negatively—and the more hours of administrative work these faculty have, the more negative their reaction. It should also be noted that respondents in all three categories state that they spend about the same amount of time on administrative duties outside term as during term, with senior lecturers and researchers spending even more time outside term. One reason for the overall negative attitude toward administrative duties could lie in the many organizational—often contradictory—changes in the Swedish system of higher learning.

Sweden is in a period during which its higher education system is expanding rapidly. The student–teacher ratio has increased markedly in recent years, as staffing levels have not kept pace with increased intake. In this context, it is interesting to see the effect university faculty members consider class enrollments to have on their teaching situation.

It appears that many university teachers react positively to having large classes. We find the fewest negative responses among professors, while other staff react more negatively (table 13.5). Several reasons can be

Table 13.5

INFLUENCE OF STUDENT ENROLLMENT ON TEACHING (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Positive influence	42	36	28
Neutral/no influence	47	38	46
Negative influence	11	26	26

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

given for this state of affairs. First of all, it must be kept in mind that professors teach less than do other ranks, and that even those who teach at the undergraduate as well as graduate level do most of their teaching at the graduate level, and, as pointed out above, the number of students in the graduate programs has not increased very much.

It is also obvious that teachers can react to varying teaching situations in different ways. Moreover, the concept of group teaching is not clearly defined. It could mean, for instance, lectures that lead to no examination and where student–teacher interaction is not expected, or it could refer to courses with extensive examinations and discussion with students. In other words, it is reasonable to assume that the teaching method and examination requirements have a great effect on whether large or small groups are perceived to have a negative or positive effect on teaching. The average professor does not teach many undergraduate courses, and much of that teaching is handled by senior lecturers (table 13.6).

One of the myths about the Swedish system of higher education has been that while professors like to vary their teaching, most senior lecturers prefer to carry out their teaching duties in parallel classes. The findings (table 13.7) clearly repudiate that notion: there is literally no difference between professors and senior lecturers. On the other hand, it seems reasonable that younger faculty with specific research appointments

Table 13.6

NUMBER OF UNDERGRADUATE AND GRADUATE COURSES TAUGHT (MEAN)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Introductory undergraduate courses	0.6	1.3	0.8
Other undergraduate courses	0.7	1.5	0.8
Graduate courses	1.2	0.8	0.7

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

Table 13.7

INFLUENCE OF COURSE LOAD ON TEACHING (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Positive influence	20	21	20
Neutral/no influence	52	52	39
Negative influence	28	28	41

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

and less academic experience react more negatively to having additional courses to teach.

Looking more closely at attitudes regarding the effect on teaching of the number of classes taught, on the one hand, and at how many classes the respondents teach, on the other, no clear pattern can be discerned, except in one instance. The senior lecturers who are extremely negative about large numbers of classes are the ones who, relatively speaking, have a large number of introductory courses—3.6 on average.

At first glance, it is surprising that the number and size of classes do not have a more negative effect on perceptions regarding the situation in which university teachers work. The explanation for this relatively "cool" attitude is almost certainly to be found in the historical background of higher education in Sweden. It could, put crudely, be claimed that university teachers in Sweden regard dealing with students as not the most important task for the university, and therefore not a primary commitment for themselves either. Indeed, the concluding section of this report provides support for this claim. This attitude derives from the fact that higher education is rooted in the Humboldtian tradition, in which the critical role of research is given priority. Tradition can, of course, vary from faculty to faculty and from institution to institution; the newer vocationally oriented institutions established in the latter part of this century could be expected to espouse different values. However, a questionnaire survey of the type used in this study does not provide enough data to permit analysis of such a hypothesis.

Close to half of the respondents feel that students are poorly prepared for higher education (table 13.8). The senior lecturers—who have the most contact with undergraduates—are the most negative about students' written and oral communication skills. Investigation of teachers' feelings about students' mastery of mathematics yields roughly similar results—about one-third are negative, with the senior lecturers again the most negative. Only 7 percent of the respondents think that admission standards should be lowered at their own institutions, while almost 76 percent think that present standards should be upheld—in spite of the fact that faculty think 76 percent of an age group capable of completing secondary education and would like to welcome 54 percent of these into higher education.

Asked about their assessment of students' work habits, only half of the professors disagreed with the statement that students do just enough to get by, as opposed to about 40 percent of the other faculty. Students do not seem to change much over time: while only 9 percent of the respondents agree strongly that students are more studious now than five

Table 13.8

ASSESSMENT OF STUDENTS' ORAL AND WRITTEN COMMUNICATION SKILLS (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Positive	35	30	31
Neutral	21	22	25
Negative	44	48	44

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

years ago, 12 percent think the opposite, with the majority (41 percent) of the teaching staff neutral on this question. Traditionally, cheating has not been a serious problem in Swedish higher education, and this is borne out by the study: only 7 percent of all teachers believe that students would be willing to cheat.

On the question of whether faculty should spend more time with students outside the classroom, opinions differ sharply. A hard core of 13 percent of all teachers strongly disagree that they should, while 12 percent of their colleagues strongly favor spending more time. However, faculty do seem to have a slightly bad conscience about the amount of time they spend with their students: although more than one-third declare themselves neutral, one-fourth are in slight agreement with the statement that faculty should spend more time with their students outside class.

The attitude of university teachers toward the students was thus fairly positive—except when it came to how well prepared they were for university studies. Yet, Sweden comes in second in the international field (32 percent), behind South Korea, where 59 percent of the teachers find their students adequately prepared, and just ahead of Japan (30 percent).

GOVERNANCE

The Swedish university system is now undergoing active decentralization, intended to give the individual universities and institutions greater autonomy vis-à-vis the government and the central authorities. The activities of each institution will no longer be subject to detailed regulations issued by the government, and it will be up to each rector and board to establish what form the internal decision-making process is to take. Within certain institutions significant decisions may be made at the departmental level, whereas in others the same decisions are made by the highest level of management. The questionnaire contained questions about how the institutions are governed, and particular interest was taken in the teachers' perceptions of the decision-making process—whether it was centralized or decentralized. It is therefore important to emphasize that the Swedish university system is undergoing changes affecting decision-making processes and that different institutions may at present be moving in different directions.

The first question teachers were asked concerned the appointment of their institution's central administration. In that area, an overwhelming majority of the teachers consider decision making to be highly centralized; for example, 75 percent of professors, 68 percent of senior lecturers, and 71 percent of other teachers feel that selection of key administrators is centralized, and there is little variation from category to category. When asked about choosing new faculty, however, a different picture emerges. It seems to depend on how close to these faculty the different categories of teachers feel themselves to be.

The effectiveness of service in an institution depends to a great extent on the degree of influence that faculty feel they can exert at different levels. What is most important in this respect is for staff to have major influence on decisions affecting their own workplace—in this case, the individual departments. An absolute majority of professors (89 percent) and of senior lecturers (64 percent) consider that they are able to influence academic policy at the departmental level. These figures are not surprising. It is most frequently a professor who is responsible for the administration and the research profile of a department. It is somewhat less usual for a senior lecturer to have total responsibility for a department's routine administrative operation and research activities—but not so unusual for a senior lecturer to have some administrative responsibilities. Thus faculty appear to feel that they do have influence in the workplace. How far this feeling is then reinforced depends on the extent to which teachers have responsibility for administration or research in their departments.

If academic staff are asked what they think of their influence at the faculty level, their responses reveal a different picture. Not quite half of the professors, and less than 20 percent of the other faculty, consider that they have any influence. Asked about their influence on the management of their institution, few faculty consider that they have any—25 percent of the professors and less than 20 percent of the other categories.

The attitudes of the different groups of academics to top-level administrators vary greatly. This is not surprising given that the overwhelming majority of teachers feel they have minimal influence at the institutional level. Nor is it merely a question of lack of information, as about half of the respondents consider themselves to be well informed about what is happening at the institutional level. That tension exists between those who teach and the administrators is reflected in the wide range of answers from faculty to the question about whether they consider the communication between administration and faculty to be poor. Only a small proportion of faculty answer no when asked if they believe that the administration is often "autocratic"—fewer than 25 percent in each group. This suggests that faculty feel they have real influence over their own work—at the departmental level. This impression is reinforced by responses to questions concerning influence over content of their teaching and the research they undertake.

The responses concerning teaching are very revealing (table 13.9). They demonstrate that the "administrative takeover" proposed by the government in the 1950s and 1960s—with special boards in charge of what should be taught (including assigned textbooks and reading lists) and how examinations should be carried out—seems to have had little effect on what is actually going on in the classroom. Of the senior academics—professors and senior lecturers—more thar two-thirds feel that they have complete freedom to determine the content of the courses they teach. It is only natural that the young researcher, who may have been asked to take over a senior lecturer's teaching duties because of the

Table 13.9

FACULTY WHO AGREE THAT THEY HAVE CONTROL OVER THE CONTENT OF THEIR COURSES AND THE FOCUS OF THEIR RESEARCH (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Teaching	70	64	56
Research	90	83	70

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

latter's having been awarded a research grant, feels less free to compose his or her own courses. In fact, institutions would be in a state of anarchy if more than 50 percent of the young—and probably temporary—faculty felt free to control what courses they taught. Again, the strong influence of Humboldtian university principles should be kept in mind: the academic is granted *Lehr- und Lernfreiheit* (freedom to teach and to learn). Another, and less flattering, view is that as nobody cares what is going on in undergraduate education in any case, faculty are free to do as they like.

Although most research in Sweden is carried out with the financial aid of Research Councils, the findings in table 13.9 indicate that academics feel they have control over their research. While differences by rank and experience are only natural, the difference between professors and senior lecturers is surprisingly small. Also, the fact that more than two-thirds of younger researchers feel completely at liberty to focus their research on topics of special interest to them creates an environment of great freedom for the young academic to pursue his or her own interests.

It is not, however, only at the microlevel that faculty feel they have control over, and therefore freedom in, their work. When asked their opinion of academic freedom in Sweden, 89 percent of the professors and 80 percent of the other ranks say that they think there are strong guarantees for academic freedom in Sweden. From this it can be concluded that any tension between the university faculty and senior administrators within the different institutions, resulting in a feeling that little influence can be exerted at the highest levels, does not determine faculty attitudes regarding the more fundamental issues of academic freedom.

When faculty are asked whether they regard the government as having too great an influence on higher education, only about 25 percent reply affirmatively. There is, on the other hand, only a slight majority in support of the opinion that government should have overriding responsibility for policy in academic matters—and about 45 percent as opposed to 30 percent who have a negative attitude toward government influence. The relatively large degree of freedom faculty experience in their daily work does not mean that there is no supervision over what they do. The majority of faculty consider that their work is evaluated.

EVALUATION

It is not surprising that those engaged in serious research—particularly the younger researchers—report that their work is evaluated (table 13.10). It is, however, disconcerting to find that more than one-third of senior lecturers do not feel that their research work is being reviewed. This attitude may have its roots in the transformation of the position of senior lecturer from a teaching post into an "academic" post in the 1970s, with responsibilities for research as well as for undergraduate teaching. At that point, the government made a distinction between "frontline research" and "competence-maintaining research." It was assumed that in most cases senior lecturers would find themselves busy with "competence-maintaining research"—that is, involved in a research activity from which the researcher is supposed to benefit but not society in general, as very little production of "new knowledge" would be expected. To clarify the distinction, special funding was provided for "competence-maintaining research," as opposed to "frontline research." The research was usually funded by the Research Councils.[4]

Equally surprising, however, is that almost nine out of ten senior lecturers feel that their teaching is being evaluated. As formal evaluation

Table 13.10

FACULTY REPORTING THAT THEIR TEACHING AND RESEARCH ARE REGULARLY ASSESSED (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Teaching	61	87	56
Research	89	57	93

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

takes place in less than one-third of Swedish university departments, this is either a cry for recognition of teaching as an academic duty or an exaggeration. It shows, however, that present government policy to promote local responsibility—appropriate accountability—may be quite acceptable to those who carry the main burden of undergraduate education in Sweden.

When asked who performs the evaluation, a clear pattern emerges from the responses (table 13.11). Teaching is evaluated primarily by students—with 97 percent of senior lecturers reporting that their teaching is evaluated by students. Where research is concerned, "external review" plays a dominant role. Ninety-two percent of professors consider that their research is subject to external review, and for the other research appointments this figure is 63 percent. Faculty in this last category indicate that departmental administrators and colleagues have major roles as far as evaluation is concerned. The distribution of responses is a likely reflection of the previously mentioned great diversity among the ranks, both with regard to the level of research and the degree of autonomy. More than 85 percent of all respondents favor using student evaluations to make their teaching more effective. This does not, however, mean that student evaluation of teaching is a regular feature in Sweden—although almost 50 percent of faculty state that they are regularly evaluated by their students. More surprising is that although 77 percent of all teachers state

Table 13.11

BY WHOM IS YOUR TEACHING AND YOUR RESEARCH REGULARLY EVALUATED? (PERCENTAGES)

	TEACHING	RESEARCH
Peers in department	20	29
Head of department	26	38
Other departments	11	21
Senior administrative staff	7	10
Students	96	4
External reviewers	9	69

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

that their work is regularly evaluated, only 65 percent claim this applies to their research. By their own account, Swedish academics find teaching evaluated more often than research—which is contrary to the popular belief.

INTERNATIONAL PERSPECTIVES

The great majority of Swedish university faculty have some form of international contact. For most Swedish academics, it is not only an advantage but a necessity to publish articles in international journals. This is mirrored by the fact that the publication of articles and books on the international scene is very common in Sweden. The respondents state that they have published on the average six articles or books internationally in the previous three years; other faculty have an average of five international publications during the same period.

To enhance international visibility and communication, most academics choose to publish in a foreign language, normally English—even texts primarily intended for domestic consumption. However, it is less common that teaching occurs in a foreign language—all categories of staff reporting that this happened about two times during the previous three-year period. Collaboration with foreign colleagues is common. Professors state that they spent, on average, seven months working with foreign colleagues doing research during the previous three years, with at least four months spent outside Sweden (table 13.12).

Swedish professors have the possibility of going on sabbatical leave once in a ten-year period (which is less frequently than in most comparable countries). Very little of this time is spent abroad, however. The average use of sabbatical leave outside Sweden is only two months in a ten-year period, which is a surprisingly low figure given the stated amounts of international contacts. It would appear that most of the international contacts do not occur during the academic year and that many Swedish professors choose to stay in Sweden during their sabbaticals.

Over 60 percent of professors and faculty with other research appointments and 50 percent of the senior lecturers report that colleagues from abroad have taught in their departments. The difference in these responses is almost certainly due to the fact that professors and other faculty with research appointments are involved to a greater extent in graduate programs than are the junior lecturers, for example; and visiting faculty from abroad are more often found in graduate than in undergraduate programs.

A total of 77 percent of professors and somewhat fewer faculty in other categories participate in foreign conferences and seminars. When asked whether they had foreign students in their departments and whether their own students studied at universities outside Sweden, a high proportion of faculty—professors again in the lead—(between 70 and 87 percent) responded affirmatively. Swedish faculty value international contacts highly, with over 80 percent (and, in the case of professors, 95 percent) agreeing with the statement that contact with researchers abroad is important for their professional work. An overwhelming majority of respondents also think it very important to keep up to date with research outside Sweden.

At present, Swedish academics have contacts with faculty and students from abroad, and the overwhelming majority think that it is essential to keep up with the international literature in their fields. They

Table 13.12

COLLABORATION WITH FOREIGN COLLEAGUES, IN PREVIOUS THREE YEARS (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
MONTHS			
0	13	36	25
1–6	47	42	45
7 or more	40	22	31

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

also think that further international contact should be encouraged in the form of international faculty and student exchanges (between 80 and 90 percent). When asked if their curriculum should be internationalized even more, the response, though affirmative, was somewhat less positive than responses to previous questions about internationalization (60 percent).

Higher Education and Society

A number of questions in the survey deal with the goals that faculty believe should be given highest priority in higher education (table 13.13). Swedish university faculty do not consider that the most important objective for higher education is education for leadership or preparation for work but rather the development of critical thinking, scholarship, and research. The relatively strong endorsement of the improvement of Sweden's international competitiveness as a goal of higher education seems to some extent to be inconsistent with other responses, as it is difficult to see how this could be effected without major elements of vocational and leadership training. Yet vocational and leadership training do not receive strong endorsement. These responses might be reflecting Swedish public opinion at the moment, for one reason given by the Swedish government for the major investment it is making in higher

Table 13.13

FACULTY WHO GIVE THE FOLLOWING GOALS OF HIGHER EDUCATION THE HIGHEST PRIORITY

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Protecting free intellectual inquiry	61	58	59
Promoting scholarship and research	58	53	51
Strengthening Sweden's international competitiveness	44	43	37
Preparing students for work	20	21	18
Resolution of basic social problems	16	20	26
Educating students for leadership	15	10	9
Lifelong learning for adults	15	20	19
Preserving the cultural heritage	10	13	11

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

education is that this will better equip Sweden to compete with other countries in exporting its goods and services. Another possibility is that faculty may interpret the question as referring to the international competitiveness of Swedish institutions of higher education.

The responses to these questions are interesting as they provide support for the claim made earlier that Swedish universities are linked to the central European tradition—that they play an important role as "critics and observers of society." Accordingly, it is more important for universities to inculcate critical thought than vocational skills and leadership qualities.

In 1991, roughly 85 percent of all Swedish seventeen-year-olds were attending upper-secondary school, and 55 percent of all eighteen-year-olds—at that time young people staying on at school after age sixteen had the choice of a two-year or three-year upper-secondary curriculum. Since 1991, the upper-secondary school system has been extended so that the great majority of young people will attend three-year programs, and today the proportion of seventeen-year-olds in upper-secondary programs is probably 90 percent. Even in 1991, therefore, Sweden was at the top among comparable countries in the proportion of young people in upper-secondary education. In terms of proportion of the population with a university education, however, Sweden is no longer at the top internationally. In the age cohort eighteen to twenty-one, net recruitment to university programs is 3.6 percent, and for the age cohort twenty-two to twenty-five it is 7.6 percent—figures that should be compared with the 1991 figures for countries in the Organisation for Economic Co-operation and Development in its entirety, 12.1 and 8.8 percent, respectively.

The respondents in the Carnegie survey were asked what proportion of young people they consider capable of completing upper-secondary education. They replied that 70 to 80 percent would benefit from such education—professors answering with 68 percent, and junior lecturers with 80 percent. These responses conflict with current Swedish educational policy, according to which virtually all young people are admitted to upper-secondary programs. When faculty were then asked what proportion of those leaving upper-secondary schools should be admitted to higher education, they estimated just over 50 percent—that is, 35 to 40 percent of the age cohort. In Sweden, just over 12 percent of an age cohort have acquired a bachelor's degree by the age of twenty-three, and the responses to this question can only be interpreted as meaning that the respondents believe that an untapped reserve of upper-secondary school leavers exists that could benefit from university studies.

There is, however, some degree of ambivalence in faculty reactions to the increased recruitment to university studies. On the one hand, more than 65 percent of respondents say that higher education should be open to all who fulfill the minimum entrance requirements. On the other hand, 75 percent would not accept easing entrance requirements in their own departments in order to give more students access to higher education.

Attitudes Toward Working Conditions

Only one group of academics, the "other faculty" (nonprofessorial) research appointments, clearly expresses a willingness to leave their posts within the following five years (table 13.14). This should not be interpreted as an expression of dissatisfaction with the job itself. The large percentage who report that they would consider changing jobs probably reflects the differences in the terms of employment within the different categories. Around 80 percent of senior lecturers and 90 percent of professors have permanent posts, as opposed to 40 percent of those with other research appointments. Within this category, there are groups of researchers who, because of current regulations, can hold their posts only for a limited period of time. Only a few professors lack permanent posts, but 60 percent of this small group think it likely that they will leave the university within five years. The corresponding figure for senior lecturers without permanent posts is 33 percent. The largest group without permanent posts is made up of academics with other research appointments, and here the proportion who believe they will leave the university within five years is 60 percent.

How faculty view the way in which their salaries affect their willingness to stay at or leave their institutions differs by academic category (table 13.15). Few say explicitly that salary is their reason for staying on; considerably more report that their salary is a reason for leaving. The other (nonprofessorial) research appointments express the greatest discontent about pay. But the attitude of faculty to their own income is not totally straightforward.

The strongest discontent with salaries is to be found among the other research appointments, where nearly half consider that their salary is poor; only about one-fifth of professors feel the same. Very few faculty rate their salary as high—professors are the group most satisfied with salary levels, and they are also the group with the smallest proportion who consider salaries reason to leave their institution within five years (table 13.16).

Relative to other professional groups, Swedish university faculty have seen a positive development in their salaries over the past ten years. They

Table 13.14

ARE YOU LIKELY TO LEAVE YOUR UNIVERSITY OR INSTITUTION IN THE NEXT FIVE YEARS? (PERCENTAGES)

	YES	NO	NEUTRAL
Professors	29	57	14
Senior lecturers	29	55	16
Other faculty	49	27	24

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

Table 13.15

IN THINKING ABOUT LEAVING OR STAYING AT THIS INSTITUTION, HOW IMPORTANT TO YOU IS THE CONSIDERATION OF INCOME? (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Reason to leave	35	36	48
Neutral	51	48	42
Reason to stay	14	16	10

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

Note: This item presented a 5-point scale, with 1 being "strong reason to leave" and 5 being "strong reason to stay." The two points on each end of the scale have been collapsed here.

Table 13.16

HOW DO YOU RATE YOUR OWN ACADEMIC SALARY? (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Excellent	2	2	1
Good	37	22	11
Fair	39	41	40
Poor	21	34	47
Don't know	1	1	1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

have made up for the deficit that occurred in the 1970s, when academic salaries were stagnating. This is probably the reason why the majority of faculty are satisfied with their salary conditions—in spite of the gap in this area in comparison with most other industrial countries. It should be noted, however, that most faculty take a pessimistic view of the future: more than 70 percent of professors, 65 percent of senior lecturers, and 57 percent of other research staff believe that their salaries will be lower than those of comparable professions.

The salary range, of course, differs by rank (table 13.17). From the table, one might conclude that there is a small proportion of teachers with extremely low salaries. It is more likely, however, that some respondents misread the question as referring to monthly rather than annual income. Of the senior lecturers, 6 percent claim to have an annual income of less than 25,000 SKr, but it is improbable that any full-time employee in Sweden has such a low annual income. Among professors, 8 percent report an annual income of between 25,000 and 50,000 SKr, which is also improbable.

By far the largest proportion of full-time faculty salaries in Sweden are paid by the departments—about 90 percent. About 8 percent of the salaries of professors, 15 percent or the senior lecturers' salaries, and 26

Table 13.17

ANNUAL INCOME OF FULL-TIME FACULTY (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
INCOME RANGE (SKR 1,000)			
Less than 127	7	7	9
127–204	1	4	34
205–281	4	40	43
282–357	27	34	13
358–434	32	9	1
More than 434	29	6	1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

Note: Salary figures represent gross, pretax amounts. It should be noted that the Swedish *krona* has been devalued 25 percent since the distribution of the questionnaire.

percent of the other research appointments' salaries come from other academic sources. The income that teachers describe as coming from outside sources probably derives from freelance work undertaken alongside the teaching or research involved in a permanent post. The current terms of employment for Swedish university faculty permit such freelance commissions.

Ever since the late 1970s it has been the explicit policy of both the authorities and the faculty trade union that university faculty should be able to combine research and teaching within the framework of their posts.[5] The largest percentage of faculty who want to concentrate primarily on research is to be found among those with other (nonprofessorial) research appointments. Even if it has been made clear that faculty should both do research and teach, research qualifications have been given highest priority in appointing senior lecturers and professors. Many of those with other (nonprofessorial) appointments have fixed-period appointments, and their chances of remaining on staff depend upon the extent to which they can succeed in acquiring research qualifications within the time available. For as long as research and teaching are not given equal weight, faculty are going to give priority to work that improves their chances of gaining permanent positions (i.e., research).

An important question in this context is, therefore, whether Swedish academics have posts that are by and large in accord with their own preferences. None of the professors in the survey claim a preference for teaching only: two-thirds want a mixture of teaching and research, while one-third prefer to do research only (table 13.18). However, it would appear that these preferences affect the actual workload only to a limited extent, although the percentage of those not teaching at all is slightly larger among those professors who want to do research only. Typically, a professor who is solely research-oriented spends more than twenty hours a week on research, while his or her more teaching-oriented colleague spends one to ten hours on research.

It seems that the major difference between professors lies in their participation in administrative duties, for, whatever their preferences with regard to teaching and research, they seem to teach the same amount. However, those who want to do research only are much less likely to take on administrative duties than are those who state that they would prefer a mixture of teaching and research.

A surprising finding of the survey is that there is a closer connection between preferences and actual duties for senior lecturers than for professors. The reason for this seems to be that senior lecturers who want to concentrate on teaching rather than on research find their wishes fulfilled: 45 percent of lecturers who want to concentrate on teaching do so. On the other hand, it should also be noted that among senior lecturers who do not want to teach, 12 percent manage to put in twenty hours or more per week of research (as compared with 6 percent of the professors sharing their passion for research). Contrary to popular belief, the administrative workload is much lighter for senior lecturers; while 12 percent of solely research-oriented professors spend more than twenty hours per week on administration, none of the senior lecturers with the same preferences spend twenty or more hours per week on administrative

Table 13.18

FACULTY PREFERENCES FOR TEACHING AND RESEARCH (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Primarily teaching	0	11	2
Leaning toward teaching	5	27	7
Leaning toward research	58	45	45
Primarily research	37	17	45

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

duties. Twenty-three percent of professors wanting mixed duties spend twenty or more hours per week on administration; the corresponding figure for senior lecturers is 14 percent.

CONCLUSION

Most of the findings of the survey are what students of Swedish higher education would expect. However, a few fallacies have been exposed. For example, there is a great difference between professors and lecturers in their attitudes toward teaching; and Swedish faculty do not feel that their teaching is evaluated. Even more surprising, and possibly very disconcerting to the bureaucratic builders of systems of higher learning, is the fact that 70 percent of professors and 65 percent of senior lecturers feel free to determine the contents of the courses that they teach.

Many university faculty are satisfied with major elements of their work. They think that the freedom to do their own research is important, and they feel that this need is being fulfilled. They feel they are able to influence the content of their teaching and their research. They have a relatively positive attitude toward the practice of allowing students to participate in evaluating their teaching. Academics are somewhat content with their salaries, but pessimistic about future salary improvements. The great majority expect to remain within higher education. And there is clearly a correlation between the faculty members' preferences with regard to research and teaching and what actually takes place.

Faculty are not pleased with everything. Those who have administrative responsibilities often find these far too burdensome. There is a negative disposition toward administrative duties, and the majority of teachers feel that they have little say in decisions made at the highest levels within their own institutions. There are, of course, numerous reasons why the Swedish study did not have a higher response rate to the questionnaires. Some participants in the study were uncertain whether they should complete the questionnaire as their duties involved only a small proportion of either teaching or research, or none at all. Except in one or two cases, these individuals were asked to complete the questionnaire as fully as possible.

On the whole, the results corroborate the findings of a similar but less detailed survey carried out by the Swedish Higher Education Commission in spring 1991. It is therefore easy to agree with its assessment of the Swedish academic profession:

> The faculty are happy and committed to their work; they have a positive view of the students and they work hard, but they are less satisfied with the material conditions of their employment. They value the freedom, the independence and opportunities for development highly. They are interested in continuous development and have a number of suggestions for improvement. They are keen to find a way of safeguarding the quality of undergraduate studies.[6]

Brian L. Levin-Stankevich and Alexander Savelyev

THE ACADEMIC PROFESSION IN RUSSIA

AN ASSESSMENT of the current status of the academic profession in Russia can at best provide a fleeting glimpse of a profession in transition. The changes in Russia since 1985 have continued to astonish observers and participants alike. Within the academy, the political and economic changes of the past decade have rendered half-century old assumptions irrelevant. They have forced the professoriate, like the rest of former Soviet society, to fend for itself and to develop a new, entrepreneurial attitude toward its efforts. Whole specializations disappeared, and new fields of study quickly rushed forward to meet "demand," a concept new to the Russian academic world. Linkages to and joint ventures with foreign institutions, formerly pursued for status and advantage, have become essential tools of economic survival. Linkages with business and industry, formerly the preserve of theoretical treatises or relegated only to polytechnic or "ministry" institutions, have become critical to the "business" of higher education.

This chapter examines the responses of Russian faculty to the International Survey of the Academic Profession. The data must be interpreted carefully for several reasons. Due to problems associated with current conditions in Russia, the survey was carried out mainly in the Moscow region, and does not necessarily reflect the perspectives of academics throughout the country. In addition, the response rate was only 14.5 percent. While our respondents are similar in their characteristics to the professoriate as a whole, care must be taken in interpreting data based on such a modest return rate. We see this study as suggestive rather than as a full analysis of the Russian academic profession. It will hopefully serve as the basis for further work on this important topic.

The first section of this chapter provides background information on Soviet, then Russian higher education. The second section examines the Russian professoriate as a whole and that part of the professoriate represented in responses to the survey. The third section examines the results of the survey, particularly in relation to teaching, research, and service. The fourth section examines the personal and professional experiences of faculty in Russia in order to better understand their current attitudes toward their role in a society in transition and to understand their fears and hopes for the future of higher education in Russia.

HIGHER EDUCATION IN RUSSIA

Russian higher education, as encountered at the time of this survey (1992), was still largely the making of the Soviet state. *Perestroika*, a policy directed at the restructuring of Soviet society, had been in effect since 1985. As restructuring created demands for autonomy and as minorities within the former federated system gained their independence, this became the restructuring of *Russian* society. The unsuccessful coup attempt of 1990, the rise of Boris Yeltsin and of reform interests, and the decision to move toward a market economy more rapidly and thoroughly than envisioned by the initiators of *perestroika*, led to the end of exclusive Communist Party rule. The subsequent ebb and flow of a nascent party system and the adjustments of economic life from planned economy to market economy have forced Russians in all areas of life to take responsibility and make decisions—what were once jealously guarded prerogatives of the state.

The educational institutions of Russia were forced to restructure themselves and their environment. Much of what is still occurring under the current climate of change is hardly, if at all, reflected in either the survey questions or faculty responses. Initially, the secession of former republics reduced the authority of Moscow agencies and led to reorganization of central educational organizations. Drastic reductions in government funding and the opening of opportunity for reform-minded people at the local level of all organizations led institutions of higher education to begin to reorganize.

The unease of this period was still strong at the time of this survey. What is reflected in the survey is the insecurity of the Russian faculty. This insecurity is reflected in concerns about institutional governance. It is very clearly reflected in the reported financial status of many faculty. It is found too in occasional evidence of the respondents' uncertainty about the future and their frustration with the obstacles to attaining their goals both for themselves and their students.

In the grand epic tradition of Russia, however, the professoriate, beset by challenges within the institutions and in the faculty's material lives, seems to rise above the anxiety. This survey found a constancy of purpose, a clarity of mission, and a commitment to the educational process in all of its manifestations. There is even a hopefulness, born of having broken the mold of the Soviet academy, and the determination to create a new, more responsive, and freer academy for the future.

Educational Organization

Since the Stalinist educational reforms of the 1930s, Russian higher education has been subjected to national administrative control. Most institutions were responsible to one or more governing agencies at the national level. Regulations governing curricula, student admissions, graduation requirements, faculty governance and status, and degree program approval were under the jurisdiction of the Ministry of Higher and Secondary Specialized Education. All candidate and doctoral degrees required approval by a Supreme Attestation Commission in Moscow.

A major educational reform decree was adopted in 1984, just before the beginning of the Gorbachev government. This reform addressed the common ground of Soviet educational reform in the post–World War II era, namely the need for more vocational training, longer schooling, and the integration of schools with social needs. Up to this time, this all meant more centralized regulation and detailed plans to be mechanically implemented uniformly throughout the country. The 1984 reform, however, had been finalized under the leadership of Mikhail Gorbachev just prior to his ascent to party chairman. It included large doses of the devolution of responsibility and accountability, later known through his economic reforms. By 1987, Kremlin officials concluded that even more restructuring was needed to actually implement the 1984 program, for it appeared insufficient to simply grant and encourage autonomy. A people trained to accept authoritarian decision making for half of a century needed to be shown how to exercise independence. In 1987, efforts to implement these reforms were redoubled by new mandates to improve the linkage between enterprises and education. Soviet leaders after Stalin routinely lamented the evolution of higher educational institutions into elite institutions, training the offspring of the influential to enter academic life and failing to teach the practical skills necessary to meet human resource planning needs.

In 1988, the State Committee for Public Education emerged through the consolidation of three previously specialized educational ministries. Since then, policies have moved higher educational institutions toward greater autonomy, fiscal responsibility, and accountability. Largely due to economic reforms, currency policy, and a subsequent reduction in government revenue, the policies have encouraged those institutions capable of making their way in an emerging capitalistic economy to do so. Some institutions have attained a status of full autonomy, gaining both control over their governance and contractual authority in exchange for fiscal responsibility. Others have achieved varying degrees of autonomy.

Institutions are encouraged to create linkages with business, industry, international enterprises, and overseas institutions in order to both generate income (preferably in foreign currency) and integrate their programs more effectively with the changing needs of the labor market. Unlike prior reform efforts, however, the latest reforms have not offered the guidance or the safety nets always taken for granted previously. As a consequence, the linkages desired for pedagogical purposes between educational institutions and economic institutions became necessary for the financial survival of the educational enterprise.

Table 13.2

PERCENTAGE OF WOMEN IN ACADEMIC POSITIONS

	PROFESSORS		SENIOR LECTURERS		RESEARCH ASSISTANTS	
	1977	1990	1977	1990	1977	1990
Humanities	11	20	43	36	31	43
Social sciences	1	7	18	23	14	18
Natural sciences	3	4	16	13	9	16
Medicine	3	5	27	24	6	27
Engineering	2	3	5	6	6	5

SOURCE: *Utbildnings departementet*, Stockholm 1994.

This gender imbalance is being redressed, but the process will be a slow one. In recent decades, the proportion of men and women in doctoral programs has become more equal. Thus, assuming that men and women are appointed on an equal footing regardless of gender, in about twenty years there should be a better gender balance in several different disciplines. However, this assumption may not be justified, for relatively speaking, fewer women than men are appointed to senior posts within higher education.

Within the faculties of engineering and the natural sciences, women constitute about 30 percent of doctoral students. As there are few holders of doctorates in engineering to be found outside higher education, the overwhelming majority of the university faculty of tomorrow will have to be recruited from today's doctoral students. This means that if there is no active discrimination against men when it comes to appointments, the gender imbalance in these faculties will persist. At present there is strong resistance among university teachers, even among women, to the concept of affirmative action in making appointments to posts within male-dominated areas.

The government, trade unions, and administrative authorities in higher education are all in their different ways working to promote a more even gender balance by influencing public opinion. But, for various reasons, the changes are taking place slowly. First of all, it is difficult to influence people's attitudes. A contributing factor is that the rungs on the career ladder in higher education in Sweden are widely spaced, and there is little room at the top. In a system with fifteen thousand teaching posts, there are only two thousand full professorships. Therefore, even if there were an absolute gender balance in the recruitment to doctoral programs, and no gender discrimination in appointments to senior posts within Swedish universities and institutions of higher education, it would take a very long time before the balance between men and women evened out.

The rapid expansion of the Swedish universities and institutions of higher education in the 1960s entailed massive new recruitment of young teachers and researchers. Since then the rate of recruitment has fallen markedly, which has led to a biased distribution by age among teachers and researchers. About 50 percent of professors were born in the 1920s and 1930s. An overwhelming proportion of senior and junior lecturers were born in the 1940s. Among the research assistants, there is a preponderance of those born in the 1950s, as is also the case with other research appointments.

This uneven age distribution is likely to create problems in higher education around the year 2005 and thereafter, as there will be a large number of retirements at that time. Politicians have clearly expressed their intention to increase the number of students taking doctorates, and this is already occurring. It is, however, difficult to say whether this increase is a permanent one or due merely to the present difficult situation in the labor market. Even if the increase in the number of doctorates being awarded is a permanent one, there are still few posts for the new graduates. Therefore, when large numbers of today's university faculty reach retirement age, there could well be a shortage of suitably qualified staff with doctorates in a number of areas.[3]

WORKLOAD

The reform of higher education in the 1970s made it possible for all categories of teachers to combine research with teaching. This did not mean, however, that all categories of teachers were able to allocate their time in similar ways. The teaching loads of university teachers are governed by a contract between the government as employer and the trade unions representing university staff. This contract stipulates a "ceiling" for the teaching expected of the different ranks. For professors, this ceiling is 115 student contact hours per year, and for senior lecturers it is 400. For the different types of research appointments, the ceiling ranges from fifty hours per academic year upward (table 13.3).

The contract in force at the moment does not stipulate that a teacher must fulfill his or her obligations solely in the form of teaching; teaching obligations can be replaced by research or administrative duties. However, as teaching is the only aspect of the duties of university teachers that is regulated in detail, the concept of "ceiling" is often confused with "regular workload," and, particularly at the smaller institutions without a basic research organization of their own, a senior lecturer can discharge his or her obligations by teaching 400 hours during an academic year, a junior lecturer by teaching 630 hours.

It should also be noted that Swedish university academics have a tendency to work (unpaid) overtime. The average working week within the civil service—which includes academic staff, in Sweden—is forty hours per week with a "normal" overtime of 2 to 3 percent. Professors claim, on average, 23 percent overtime and senior lecturers 8 percent. On the other hand, as professors and senior lecturers compare themselves to senior civil service management, this is not surprising: few (if any) civil service directors have a workload of less than fifty hours per week. Few university teachers have posts in which the bulk of their work (more than 90 percent of the total number of working hours) consists of teaching and ancillary activities—3 percent of professors and 9 percent of senior lecturers.

The questionnaire does not contain questions as to how the respondents' teaching commitments relate to the contractual ceiling. But there is a question concerning the number of hours per week the respondents spend in a seminar room or a laboratory with students—in other words, the time spent on classroom teaching. There are considerable differences among the different categories of faculty in the number of hours spent on classroom teaching. Of professors, 50 percent teach

Table 13.3

ALLOCATION OF TIME PER WEEK AMONG DIFFERENT ACTIVITIES (PERCENTAGES)

	DURING TERM			OUTSIDE TERM		
	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Teaching	22	39	26	9	14	6
Research	35	31	50	46	51	66
Service	10	9	7	11	10	9
Administration	23	15	10	21	16	12
Other	11	6	7	13	9	7
Total hours per week	49	44	43	48	42	45

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

more hours than stipulated in their contracts, as do 25 percent of senior lecturers. Within all staff categories, only relatively small groups have no teaching at all.

Work designated as supervision also varies in extent, both within and between the different categories. On average, professors do more supervising than other groups. Senior lecturers, on the whole, do somewhat less, and researchers the least. It is natural that persons in this last category have the least contact with students as their posts are to a considerable extent devoted to their own research. It would be reasonable to assume that those teachers who spend the most time in the classroom do little supervision and vice versa; however, this is not the case. If the covariation between hours of classroom teaching and supervision each week is examined, no relationship between the two variables will be found—Pearson's coefficient of correlation is close to zero for all groups.

There is an obvious pattern in the allocation of working hours of university teachers between undergraduate and graduate programs. The number of professors who spend all their time in undergraduate programs is negligible, contrasted with the one-third of senior lecturers who do so. More than 20 percent of professors teach only at the graduate level. With the exception of those holding research appointments, only a few teachers have no teaching or supervision duties at all (table 13.4). There are a number of factors that affect the quality of teaching, positively or negatively. All categories of teachers consider that administrative duties have a negative effect on their teaching.

There is an interesting relationship between the attitudes of university teachers regarding the effect of administrative duties on their ability to teach and the extent of their administrative responsibilities. The professors reporting a very negative effect are those who, on average, spend more time on administration than on teaching—with 70 percent considering that administrative duties have a negative effect on their teaching compared with 46 percent of senior lecturers and less than 40 percent of those with research appointments. Within each group of teachers the relationship between attitude to administrative duties and the number of hours spent on them can be represented as a U-shaped curve.

This curve could be interpreted to mean that a small group of

Table 13.4

DISTRIBUTION OF TEACHING RESPONSIBILITIES, BY LEVEL OF PROGRAM

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Graduate and undergraduate programs	74	59	43
Graduate programs	21	6	10
Undergraduate programs	2	30	20
Neither level	3	5	27

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

university faculty members enjoy administration and take on more such work than the average. Then there is an intermediate group that is reasonably satisfied with the number of hours of administration it had. Finally, a relatively large group reacts negatively—and the more hours of administrative work these faculty have, the more negative their reaction. It should also be noted that respondents in all three categories state that they spend about the same amount of time on administrative duties outside term as during term, with senior lecturers and researchers spending even more time outside term. One reason for the overall negative attitude toward administrative duties could lie in the many organizational—often contradictory—changes in the Swedish system of higher learning.

Sweden is in a period during which its higher education system is expanding rapidly. The student–teacher ratio has increased markedly in recent years, as staffing levels have not kept pace with increased intake. In this context, it is interesting to see the effect university faculty members consider class enrollments to have on their teaching situation.

It appears that many university teachers react positively to having large classes. We find the fewest negative responses among professors, while other staff react more negatively (table 13.5). Several reasons can be

Table 13.5

INFLUENCE OF STUDENT ENROLLMENT ON TEACHING (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Positive influence	42	36	28
Neutral/no influence	47	38	46
Negative influence	11	26	26

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

given for this state of affairs. First of all, it must be kept in mind that professors teach less than do other ranks, and that even those who teach at the undergraduate as well as graduate level do most of their teaching at the graduate level, and, as pointed out above, the number of students in the graduate programs has not increased very much.

It is also obvious that teachers can react to varying teaching situations in different ways. Moreover, the concept of group teaching is not clearly defined. It could mean, for instance, lectures that lead to no examination and where student–teacher interaction is not expected, or it could refer to courses with extensive examinations and discussion with students. In other words, it is reasonable to assume that the teaching method and examination requirements have a great effect on whether large or small groups are perceived to have a negative or positive effect on teaching. The average professor does not teach many undergraduate courses, and much of that teaching is handled by senior lecturers (table 13.6).

One of the myths about the Swedish system of higher education has been that while professors like to vary their teaching, most senior lecturers prefer to carry out their teaching duties in parallel classes. The findings (table 13.7) clearly repudiate that notion: there is literally no difference between professors and senior lecturers. On the other hand, it seems reasonable that younger faculty with specific research appointments

Table 13.6

NUMBER OF UNDERGRADUATE AND GRADUATE COURSES TAUGHT (MEAN)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Introductory undergraduate courses	0.6	1.3	0.8
Other undergraduate courses	0.7	1.5	0.8
Graduate courses	1.2	0.8	0.7

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

Table 13.7

INFLUENCE OF COURSE LOAD ON TEACHING (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Positive influence	20	21	20
Neutral/no influence	52	52	39
Negative influence	28	28	41

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

and less academic experience react more negatively to having additional courses to teach.

Looking more closely at attitudes regarding the effect on teaching of the number of classes taught, on the one hand, and at how many classes the respondents teach, on the other, no clear pattern can be discerned, except in one instance. The senior lecturers who are extremely negative about large numbers of classes are the ones who, relatively speaking, have a large number of introductory courses—3.6 on average.

At first glance, it is surprising that the number and size of classes do not have a more negative effect on perceptions regarding the situation in which university teachers work. The explanation for this relatively "cool" attitude is almost certainly to be found in the historical background of higher education in Sweden. It could, put crudely, be claimed that university teachers in Sweden regard dealing with students as not the most important task for the university, and therefore not a primary commitment for themselves either. Indeed, the concluding section of this report provides support for this claim. This attitude derives from the fact that higher education is rooted in the Humboldtian tradition, in which the critical role of research is given priority. Tradition can, of course, vary from faculty to faculty and from institution to institution; the newer vocationally oriented institutions established in the latter part of this century could be expected to espouse different values. However, a questionnaire survey of the type used in this study does not provide enough data to permit analysis of such a hypothesis.

Close to half of the respondents feel that students are poorly prepared for higher education (table 13.8). The senior lecturers—who have the most contact with undergraduates—are the most negative about students' written and oral communication skills. Investigation of teachers' feelings about students' mastery of mathematics yields roughly similar results—about one-third are negative, with the senior lecturers again the most negative. Only 7 percent of the respondents think that admission standards should be lowered at their own institutions, while almost 76 percent think that present standards should be upheld—in spite of the fact that faculty think 76 percent of an age group capable of completing secondary education and would like to welcome 54 percent of these into higher education.

Asked about their assessment of students' work habits, only half of the professors disagreed with the statement that students do just enough to get by, as opposed to about 40 percent of the other faculty. Students do not seem to change much over time: while only 9 percent of the respondents agree strongly that students are more studious now than five

Table 13.8

ASSESSMENT OF STUDENTS' ORAL AND WRITTEN COMMUNICATION SKILLS (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Positive	35	30	31
Neutral	21	22	25
Negative	44	48	44

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

years ago, 12 percent think the opposite, with the majority (41 percent) of the teaching staff neutral on this question. Traditionally, cheating has not been a serious problem in Swedish higher education, and this is borne out by the study: only 7 percent of all teachers believe that students would be willing to cheat.

On the question of whether faculty should spend more time with students outside the classroom, opinions differ sharply. A hard core of 13 percent of all teachers strongly disagree that they should, while 12 percent of their colleagues strongly favor spending more time. However, faculty do seem to have a slightly bad conscience about the amount of time they spend with their students: although more than one-third declare themselves neutral, one-fourth are in slight agreement with the statement that faculty should spend more time with their students outside class.

The attitude of university teachers toward the students was thus fairly positive—except when it came to how well prepared they were for university studies. Yet, Sweden comes in second in the international field (32 percent), behind South Korea, where 59 percent of the teachers find their students adequately prepared, and just ahead of Japan (30 percent).

GOVERNANCE

The Swedish university system is now undergoing active decentralization, intended to give the individual universities and institutions greater autonomy vis-à-vis the government and the central authorities. The activities of each institution will no longer be subject to detailed regulations issued by the government, and it will be up to each rector and board to establish what form the internal decision-making process is to take. Within certain institutions significant decisions may be made at the departmental level, whereas in others the same decisions are made by the highest level of management. The questionnaire contained questions about how the institutions are governed, and particular interest was taken in the teachers' perceptions of the decision-making process—whether it was centralized or decentralized. It is therefore important to emphasize that the Swedish university system is undergoing changes affecting decision-making processes and that different institutions may at present be moving in different directions.

The first question teachers were asked concerned the appointment of their institution's central administration. In that area, an overwhelming majority of the teachers consider decision making to be highly centralized; for example, 75 percent of professors, 68 percent of senior lecturers, and 71 percent of other teachers feel that selection of key administrators is centralized, and there is little variation from category to category. When asked about choosing new faculty, however, a different picture emerges. It seems to depend on how close to these faculty the different categories of teachers feel themselves to be.

The effectiveness of service in an institution depends to a great extent on the degree of influence that faculty feel they can exert at different levels. What is most important in this respect is for staff to have major influence on decisions affecting their own workplace—in this case, the individual departments. An absolute majority of professors (89 percent) and of senior lecturers (64 percent) consider that they are able to influence academic policy at the departmental level. These figures are not surprising. It is most frequently a professor who is responsible for the administration and the research profile of a department. It is somewhat less usual for a senior lecturer to have total responsibility for a department's routine administrative operation and research activities—but not so unusual for a senior lecturer to have some administrative responsibilities. Thus faculty appear to feel that they do have influence in the workplace. How far this feeling is then reinforced depends on the extent to which teachers have responsibility for administration or research in their departments.

If academic staff are asked what they think of their influence at the faculty level, their responses reveal a different picture. Not quite half of the professors, and less than 20 percent of the other faculty, consider that they have any influence. Asked about their influence on the management of their institution, few faculty consider that they have any—25 percent of the professors and less than 20 percent of the other categories.

The attitudes of the different groups of academics to top-level administrators vary greatly. This is not surprising given that the overwhelming majority of teachers feel they have minimal influence at the institutional level. Nor is it merely a question of lack of information, as about half of the respondents consider themselves to be well informed about what is happening at the institutional level. That tension exists between those who teach and the administrators is reflected in the wide range of answers from faculty to the question about whether they consider the communication between administration and faculty to be poor. Only a small proportion of faculty answer no when asked if they believe that the administration is often "autocratic"—fewer than 25 percent in each group. This suggests that faculty feel they have real influence over their own work—at the departmental level. This impression is reinforced by responses to questions concerning influence over content of their teaching and the research they undertake.

The responses concerning teaching are very revealing (table 13.9). They demonstrate that the "administrative takeover" proposed by the government in the 1950s and 1960s—with special boards in charge of what should be taught (including assigned textbooks and reading lists) and how examinations should be carried out—seems to have had little effect on what is actually going on in the classroom. Of the senior academics—professors and senior lecturers—more than two-thirds feel that they have complete freedom to determine the content of the courses they teach. It is only natural that the young researcher, who may have been asked to take over a senior lecturer's teaching duties because of the

Table 13.9

FACULTY WHO AGREE THAT THEY HAVE CONTROL OVER THE CONTENT OF THEIR COURSES AND THE FOCUS OF THEIR RESEARCH (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Teaching	70	64	56
Research	90	83	70

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

latter's having been awarded a research grant, feels less free to compose his or her own courses. In fact, institutions would be in a state of anarchy if more than 50 percent of the young—and probably temporary—faculty felt free to control what courses they taught. Again, the strong influence of Humboldtian university principles should be kept in mind: the academic is granted *Lehr- und Lernfreiheit* (freedom to teach and to learn). Another, and less flattering, view is that as nobody cares what is going on in undergraduate education in any case, faculty are free to do as they like.

Although most research in Sweden is carried out with the financial aid of Research Councils, the findings in table 13.9 indicate that academics feel they have control over their research. While differences by rank and experience are only natural, the difference between professors and senior lecturers is surprisingly small. Also, the fact that more than two-thirds of younger researchers feel completely at liberty to focus their research on topics of special interest to them creates an environment of great freedom for the young academic to pursue his or her own interests.

It is not, however, only at the microlevel that faculty feel they have control over, and therefore freedom in, their work. When asked their opinion of academic freedom in Sweden, 89 percent of the professors and 80 percent of the other ranks say that they think there are strong guarantees for academic freedom in Sweden. From this it can be concluded that any tension between the university faculty and senior administrators within the different institutions, resulting in a feeling that little influence can be exerted at the highest levels, does not determine faculty attitudes regarding the more fundamental issues of academic freedom.

When faculty are asked whether they regard the government as having too great an influence on higher education, only about 25 percent reply affirmatively. There is, on the other hand, only a slight majority in support of the opinion that government should have overriding responsibility for policy in academic matters—and about 45 percent as opposed to 30 percent who have a negative attitude toward government influence. The relatively large degree of freedom faculty experience in their daily work does not mean that there is no supervision over what they do. The majority of faculty consider that their work is evaluated.

EVALUATION

It is not surprising that those engaged in serious research—particularly the younger researchers—report that their work is evaluated (table 13.10). It is, however, disconcerting to find that more than one-third of senior lecturers do not feel that their research work is being reviewed. This attitude may have its roots in the transformation of the position of senior lecturer from a teaching post into an "academic" post in the 1970s, with responsibilities for research as well as for undergraduate teaching. At that point, the government made a distinction between "frontline research" and "competence-maintaining research." It was assumed that in most cases senior lecturers would find themselves busy with "competence-maintaining research"—that is, involved in a research activity from which the researcher is supposed to benefit but not society in general, as very little production of "new knowledge" would be expected. To clarify the distinction, special funding was provided for "competence-maintaining research," as opposed to "frontline research." The research was usually funded by the Research Councils.[4]

Equally surprising, however, is that almost nine out of ten senior lecturers feel that their teaching is being evaluated. As formal evaluation

Table 13.10

FACULTY REPORTING THAT THEIR TEACHING AND RESEARCH ARE REGULARLY ASSESSED (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Teaching	61	87	56
Research	89	57	93

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

takes place in less than one-third of Swedish university departments, this is either a cry for recognition of teaching as an academic duty or an exaggeration. It shows, however, that present government policy to promote local responsibility—appropriate accountability—may be quite acceptable to those who carry the main burden of undergraduate education in Sweden.

When asked who performs the evaluation, a clear pattern emerges from the responses (table 13.11). Teaching is evaluated primarily by students—with 97 percent of senior lecturers reporting that their teaching is evaluated by students. Where research is concerned, "external review" plays a dominant role. Ninety-two percent of professors consider that their research is subject to external review, and for the other research appointments this figure is 63 percent. Faculty in this last category indicate that departmental administrators and colleagues have major roles as far as evaluation is concerned. The distribution of responses is a likely reflection of the previously mentioned great diversity among the ranks, both with regard to the level of research and the degree of autonomy. More than 85 percent of all respondents favor using student evaluations to make their teaching more effective. This does not, however, mean that student evaluation of teaching is a regular feature in Sweden—although almost 50 percent of faculty state that they are regularly evaluated by their students. More surprising is that although 77 percent of all teachers state

Table 13.11

BY WHOM IS YOUR TEACHING AND YOUR RESEARCH REGULARLY EVALUATED? (PERCENTAGES)

	TEACHING	RESEARCH
Peers in department	20	29
Head of department	26	38
Other departments	11	21
Senior administrative staff	7	10
Students	96	4
External reviewers	9	69

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

that their work is regularly evaluated, only 65 percent claim this applies to their research. By their own account, Swedish academics find teaching evaluated more often than research—which is contrary to the popular belief.

INTERNATIONAL PERSPECTIVES

The great majority of Swedish university faculty have some form of international contact. For most Swedish academics, it is not only an advantage but a necessity to publish articles in international journals. This is mirrored by the fact that the publication of articles and books on the international scene is very common in Sweden. The respondents state that they have published on the average six articles or books internationally in the previous three years; other faculty have an average of five international publications during the same period.

To enhance international visibility and communication, most academics choose to publish in a foreign language, normally English—even texts primarily intended for domestic consumption. However, it is less common that teaching occurs in a foreign language—all categories of staff reporting that this happened about two times during the previous three-year period. Collaboration with foreign colleagues is common. Professors state that they spent, on average, seven months working with foreign colleagues doing research during the previous three years, with at least four months spent outside Sweden (table 13.12).

Swedish professors have the possibility of going on sabbatical leave once in a ten-year period (which is less frequently than in most comparable countries). Very little of this time is spent abroad, however. The average use of sabbatical leave outside Sweden is only two months in a ten-year period, which is a surprisingly low figure given the stated amounts of international contacts. It would appear that most of the international contacts do not occur during the academic year and that many Swedish professors choose to stay in Sweden during their sabbaticals.

Over 60 percent of professors and faculty with other research appointments and 50 percent of the senior lecturers report that colleagues from abroad have taught in their departments. The difference in these responses is almost certainly due to the fact that professors and other faculty with research appointments are involved to a greater extent in graduate programs than are the junior lecturers, for example; and visiting faculty from abroad are more often found in graduate than in undergraduate programs.

A total of 77 percent of professors and somewhat fewer faculty in other categories participate in foreign conferences and seminars. When asked whether they had foreign students in their departments and whether their own students studied at universities outside Sweden, a high proportion of faculty—professors again in the lead—(between 70 and 87 percent) responded affirmatively. Swedish faculty value international contacts highly, with over 80 percent (and, in the case of professors, 95 percent) agreeing with the statement that contact with researchers abroad is important for their professional work. An overwhelming majority of respondents also think it very important to keep up to date with research outside Sweden.

At present, Swedish academics have contacts with faculty and students from abroad, and the overwhelming majority think that it is essential to keep up with the international literature in their fields. They

Table 13.12

COLLABORATION WITH FOREIGN COLLEAGUES, IN PREVIOUS THREE YEARS (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
MONTHS			
0	13	36	25
1–6	47	42	45
7 or more	40	22	31

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

also think that further international contact should be encouraged in the form of international faculty and student exchanges (between 80 and 90 percent). When asked if their curriculum should be internationalized even more, the response, though affirmative, was somewhat less positive than responses to previous questions about internationalization (60 percent).

HIGHER EDUCATION AND SOCIETY

A number of questions in the survey deal with the goals that faculty believe should be given highest priority in higher education (table 13.13). Swedish university faculty do not consider that the most important objective for higher education is education for leadership or preparation for work but rather the development of critical thinking, scholarship, and research. The relatively strong endorsement of the improvement of Sweden's international competitiveness as a goal of higher education seems to some extent to be inconsistent with other responses, as it is difficult to see how this could be effected without major elements of vocational and leadership training. Yet vocational and leadership training do not receive strong endorsement. These responses might be reflecting Swedish public opinion at the moment, for one reason given by the Swedish government for the major investment it is making in higher

Table 13.13

FACULTY WHO GIVE THE FOLLOWING GOALS OF HIGHER EDUCATION THE HIGHEST PRIORITY

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Protecting free intellectual inquiry	61	58	59
Promoting scholarship and research	58	53	51
Strengthening Sweden's international competitiveness	44	43	37
Preparing students for work	20	21	18
Resolution of basic social problems	16	20	26
Educating students for leadership	15	10	9
Lifelong learning for adults	15	20	19
Preserving the cultural heritage	10	13	11

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

education is that this will better equip Sweden to compete with other countries in exporting its goods and services. Another possibility is that faculty may interpret the question as referring to the international competitiveness of Swedish institutions of higher education.

The responses to these questions are interesting as they provide support for the claim made earlier that Swedish universities are linked to the central European tradition—that they play an important role as "critics and observers of society." Accordingly, it is more important for universities to inculcate critical thought than vocational skills and leadership qualities.

In 1991, roughly 85 percent of all Swedish seventeen-year-olds were attending upper-secondary school, and 55 percent of all eighteen-year-olds—at that time young people staying on at school after age sixteen had the choice of a two-year or three-year upper-secondary curriculum. Since 1991, the upper-secondary school system has been extended so that the great majority of young people will attend three-year programs, and today the proportion of seventeen-year-olds in upper-secondary programs is probably 90 percent. Even in 1991, therefore, Sweden was at the top among comparable countries in the proportion of young people in upper-secondary education. In terms of proportion of the population with a university education, however, Sweden is no longer at the top internationally. In the age cohort eighteen to twenty-one, net recruitment to university programs is 3.6 percent, and for the age cohort twenty-two to twenty-five it is 7.6 percent—figures that should be compared with the 1991 figures for countries in the Organisation for Economic Co-operation and Development in its entirety, 12.1 and 8.8 percent, respectively.

The respondents in the Carnegie survey were asked what proportion of young people they consider capable of completing upper-secondary education. They replied that 70 to 80 percent would benefit from such education—professors answering with 68 percent, and junior lecturers with 80 percent. These responses conflict with current Swedish educational policy, according to which virtually all young people are admitted to upper-secondary programs. When faculty were then asked what proportion of those leaving upper-secondary schools should be admitted to higher education, they estimated just over 50 percent—that is, 35 to 40 percent of the age cohort. In Sweden, just over 12 percent of an age cohort have acquired a bachelor's degree by the age of twenty-three, and the responses to this question can only be interpreted as meaning that the respondents believe that an untapped reserve of upper-secondary school leavers exists that could benefit from university studies.

There is, however, some degree of ambivalence in faculty reactions to the increased recruitment to university studies. On the one hand, more than 65 percent of respondents say that higher education should be open to all who fulfill the minimum entrance requirements. On the other hand, 75 percent would not accept easing entrance requirements in their own departments in order to give more students access to higher education.

Attitudes Toward Working Conditions

Only one group of academics, the "other faculty" (nonprofessorial) research appointments, clearly expresses a willingness to leave their posts within the following five years (table 13.14). This should not be interpreted as an expression of dissatisfaction with the job itself. The large percentage who report that they would consider changing jobs probably reflects the differences in the terms of employment within the different categories. Around 80 percent of senior lecturers and 90 percent of professors have permanent posts, as opposed to 40 percent of those with other research appointments. Within this category, there are groups of researchers who, because of current regulations, can hold their posts only for a limited period of time. Only a few professors lack permanent posts, but 60 percent of this small group think it likely that they will leave the university within five years. The corresponding figure for senior lecturers without permanent posts is 33 percent. The largest group without permanent posts is made up of academics with other research appointments, and here the proportion who believe they will leave the university within five years is 60 percent.

How faculty view the way in which their salaries affect their willingness to stay at or leave their institutions differs by academic category (table 13.15). Few say explicitly that salary is their reason for staying on; considerably more report that their salary is a reason for leaving. The other (nonprofessorial) research appointments express the greatest discontent about pay. But the attitude of faculty to their own income is not totally straightforward.

The strongest discontent with salaries is to be found among the other research appointments, where nearly half consider that their salary is poor; only about one-fifth of professors feel the same. Very few faculty rate their salary as high—professors are the group most satisfied with salary levels, and they are also the group with the smallest proportion who consider salaries reason to leave their institution within five years (table 13.16).

Relative to other professional groups, Swedish university faculty have seen a positive development in their salaries over the past ten years. They

Table 13.14

ARE YOU LIKELY TO LEAVE YOUR UNIVERSITY OR INSTITUTION IN THE NEXT FIVE YEARS? (PERCENTAGES)

	YES	NO	NEUTRAL
Professors	29	57	14
Senior lecturers	29	55	16
Other faculty	49	27	24

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

Table 13.15

IN THINKING ABOUT LEAVING OR STAYING AT THIS INSTITUTION, HOW IMPORTANT TO YOU IS THE CONSIDERATION OF INCOME? (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Reason to leave	35	36	48
Neutral	51	48	42
Reason to stay	14	16	10

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

Note: This item presented a 5-point scale, with 1 being "strong reason to leave" and 5 being "strong reason to stay." The two points on each end of the scale have been collapsed here.

Table 13.16

HOW DO YOU RATE YOUR OWN ACADEMIC SALARY? (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Excellent	2	2	1
Good	37	22	11
Fair	39	41	40
Poor	21	34	47
Don't know	1	1	1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

have made up for the deficit that occurred in the 1970s, when academic salaries were stagnating. This is probably the reason why the majority of faculty are satisfied with their salary conditions—in spite of the gap in this area in comparison with most other industrial countries. It should be noted, however, that most faculty take a pessimistic view of the future: more than 70 percent of professors, 65 percent of senior lecturers, and 57 percent of other research staff believe that their salaries will be lower than those of comparable professions.

The salary range, of course, differs by rank (table 13.17). From the table, one might conclude that there is a small proportion of teachers with extremely low salaries. It is more likely, however, that some respondents misread the question as referring to monthly rather than annual income. Of the senior lecturers, 6 percent claim to have an annual income of less than 25,000 SKr, but it is improbable that any full-time employee in Sweden has such a low annual income. Among professors, 8 percent report an annual income of between 25,000 and 50,000 SKr, which is also improbable.

By far the largest proportion of full-time faculty salaries in Sweden are paid by the departments—about 90 percent. About 8 percent of the salaries of professors, 15 percent or the senior lecturers' salaries, and 26

Table 13.17
ANNUAL INCOME OF FULL-TIME FACULTY (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
INCOME RANGE (SKR 1,000)			
Less than 127	7	7	9
127–204	1	4	34
205–281	4	40	43
282–357	27	34	13
358–434	32	9	1
More than 434	29	6	1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

Note: Salary figures represent gross, pretax amounts. It should be noted that the Swedish *krona* has been devalued 25 percent since the distribution of the questionnaire.

percent of the other research appointments' salaries come from other academic sources. The income that teachers describe as coming from outside sources probably derives from freelance work undertaken alongside the teaching or research involved in a permanent post. The current terms of employment for Swedish university faculty permit such freelance commissions.

Ever since the late 1970s it has been the explicit policy of both the authorities and the faculty trade union that university faculty should be able to combine research and teaching within the framework of their posts.[5] The largest percentage of faculty who want to concentrate primarily on research is to be found among those with other (nonprofessorial) research appointments. Even if it has been made clear that faculty should both do research and teach, research qualifications have been given highest priority in appointing senior lecturers and professors. Many of those with other (nonprofessorial) appointments have fixed-period appointments, and their chances of remaining on staff depend upon the extent to which they can succeed in acquiring research qualifications within the time available. For as long as research and teaching are not given equal weight, faculty are going to give priority to work that improves their chances of gaining permanent positions (i.e., research).

An important question in this context is, therefore, whether Swedish academics have posts that are by and large in accord with their own preferences. None of the professors in the survey claim a preference for teaching only: two-thirds want a mixture of teaching and research, while one-third prefer to do research only (table 13.18). However, it would appear that these preferences affect the actual workload only to a limited extent, although the percentage of those not teaching at all is slightly larger among those professors who want to do research only. Typically, a professor who is solely research-oriented spends more than twenty hours a week on research, while his or her more teaching-oriented colleague spends one to ten hours on research.

It seems that the major difference between professors lies in their participation in administrative duties, for, whatever their preferences with regard to teaching and research, they seem to teach the same amount. However, those who want to do research only are much less likely to take on administrative duties than are those who state that they would prefer a mixture of teaching and research.

A surprising finding of the survey is that there is a closer connection between preferences and actual duties for senior lecturers than for professors. The reason for this seems to be that senior lecturers who want to concentrate on teaching rather than on research find their wishes fulfilled: 45 percent of lecturers who want to concentrate on teaching do so. On the other hand, it should also be noted that among senior lecturers who do not want to teach, 12 percent manage to put in twenty hours or more per week of research (as compared with 6 percent of the professors sharing their passion for research). Contrary to popular belief, the administrative workload is much lighter for senior lecturers; while 12 percent of solely research-oriented professors spend more than twenty hours per week on administration, none of the senior lecturers with the same preferences spend twenty or more hours per week on administrative

Table 13.18

FACULTY PREFERENCES FOR TEACHING AND RESEARCH (PERCENTAGES)

	PROFESSORS	SENIOR LECTURERS	OTHER FACULTY
Primarily teaching	0	11	2
Leaning toward teaching	5	27	7
Leaning toward research	58	45	45
Primarily research	37	17	45

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Sweden).

duties. Twenty-three percent of professors wanting mixed duties spend twenty or more hours per week on administration; the corresponding figure for senior lecturers is 14 percent.

CONCLUSION

Most of the findings of the survey are what students of Swedish higher education would expect. However, a few fallacies have been exposed. For example, there is a great difference between professors and lecturers in their attitudes toward teaching; and Swedish faculty do not feel that their teaching is evaluated. Even more surprising, and possibly very disconcerting to the bureaucratic builders of systems of higher learning, is the fact that 70 percent of professors and 65 percent of senior lecturers feel free to determine the contents of the courses that they teach.

Many university faculty are satisfied with major elements of their work. They think that the freedom to do their own research is important, and they feel that this need is being fulfilled. They feel they are able to influence the content of their teaching and their research. They have a relatively positive attitude toward the practice of allowing students to participate in evaluating their teaching. Academics are somewhat content with their salaries, but pessimistic about future salary improvements. The great majority expect to remain within higher education. And there is clearly a correlation between the faculty members' preferences with regard to research and teaching and what actually takes place.

Faculty are not pleased with everything. Those who have administrative responsibilities often find these far too burdensome. There is a negative disposition toward administrative duties, and the majority of teachers feel that they have little say in decisions made at the highest levels within their own institutions. There are, of course, numerous reasons why the Swedish study did not have a higher response rate to the questionnaires. Some participants in the study were uncertain whether they should complete the questionnaire as their duties involved only a small proportion of either teaching or research, or none at all. Except in one or two cases, these individuals were asked to complete the questionnaire as fully as possible.

On the whole, the results corroborate the findings of a similar but less detailed survey carried out by the Swedish Higher Education Commission in spring 1991. It is therefore easy to agree with its assessment of the Swedish academic profession:

> The faculty are happy and committed to their work; they have a positive view of the students and they work hard, but they are less satisfied with the material conditions of their employment. They value the freedom, the independence and opportunities for development highly. They are interested in continuous development and have a number of suggestions for improvement. They are keen to find a way of safeguarding the quality of undergraduate studies.[6]

Brian L. Levin-Stankevich and Alexander Savelyev

THE ACADEMIC PROFESSION IN RUSSIA

An assessment of the current status of the academic profession in Russia can at best provide a fleeting glimpse of a profession in transition. The changes in Russia since 1985 have continued to astonish observers and participants alike. Within the academy, the political and economic changes of the past decade have rendered half-century old assumptions irrelevant. They have forced the professoriate, like the rest of former Soviet society, to fend for itself and to develop a new, entrepreneurial attitude toward its efforts. Whole specializations disappeared, and new fields of study quickly rushed forward to meet "demand," a concept new to the Russian academic world. Linkages to and joint ventures with foreign institutions, formerly pursued for status and advantage, have become essential tools of economic survival. Linkages with business and industry, formerly the preserve of theoretical treatises or relegated only to polytechnic or "ministry" institutions, have become critical to the "business" of higher education.

This chapter examines the responses of Russian faculty to the International Survey of the Academic Profession. The data must be interpreted carefully for several reasons. Due to problems associated with current conditions in Russia, the survey was carried out mainly in the Moscow region, and does not necessarily reflect the perspectives of academics throughout the country. In addition, the response rate was only 14.5 percent. While our respondents are similar in their characteristics to the professoriate as a whole, care must be taken in interpreting data based on such a modest return rate. We see this study as suggestive rather than as a full analysis of the Russian academic profession. It will hopefully serve as the basis for further work on this important topic.

The first section of this chapter provides background information on Soviet, then Russian higher education. The second section examines the Russian professoriate as a whole and that part of the professoriate represented in responses to the survey. The third section examines the results of the survey, particularly in relation to teaching, research, and service. The fourth section examines the personal and professional experiences of faculty in Russia in order to better understand their current attitudes toward their role in a society in transition and to understand their fears and hopes for the future of higher education in Russia.

HIGHER EDUCATION IN RUSSIA

Russian higher education, as encountered at the time of this survey (1992), was still largely the making of the Soviet state. *Perestroika*, a policy directed at the restructuring of Soviet society, had been in effect since 1985. As restructuring created demands for autonomy and as minorities within the former federated system gained their independence, this became the restructuring of *Russian* society. The unsuccessful coup attempt of 1990, the rise of Boris Yeltsin and of reform interests, and the decision to move toward a market economy more rapidly and thoroughly than envisioned by the initiators of *perestroika*, led to the end of exclusive Communist Party rule. The subsequent ebb and flow of a nascent party system and the adjustments of economic life from planned economy to market economy have forced Russians in all areas of life to take responsibility and make decisions—what were once jealously guarded prerogatives of the state.

The educational institutions of Russia were forced to restructure themselves and their environment. Much of what is still occurring under the current climate of change is hardly, if at all, reflected in either the survey questions or faculty responses. Initially, the secession of former republics reduced the authority of Moscow agencies and led to reorganization of central educational organizations. Drastic reductions in government funding and the opening of opportunity for reform-minded people at the local level of all organizations led institutions of higher education to begin to reorganize.

The unease of this period was still strong at the time of this survey. What is reflected in the survey is the insecurity of the Russian faculty. This insecurity is reflected in concerns about institutional governance. It is very clearly reflected in the reported financial status of many faculty. It is found too in occasional evidence of the respondents' uncertainty about the future and their frustration with the obstacles to attaining their goals both for themselves and their students.

In the grand epic tradition of Russia, however, the professoriate, beset by challenges within the institutions and in the faculty's material lives, seems to rise above the anxiety. This survey found a constancy of purpose, a clarity of mission, and a commitment to the educational process in all of its manifestations. There is even a hopefulness, born of having broken the mold of the Soviet academy, and the determination to create a new, more responsive, and freer academy for the future.

Educational Organization

Since the Stalinist educational reforms of the 1930s, Russian higher education has been subjected to national administrative control. Most institutions were responsible to one or more governing agencies at the national level. Regulations governing curricula, student admissions, graduation requirements, faculty governance and status, and degree program approval were under the jurisdiction of the Ministry of Higher and Secondary Specialized Education. All candidate and doctoral degrees required approval by a Supreme Attestation Commission in Moscow.

A major educational reform decree was adopted in 1984, just before the beginning of the Gorbachev government. This reform addressed the common ground of Soviet educational reform in the post–World War II era, namely the need for more vocational training, longer schooling, and the integration of schools with social needs. Up to this time, this all meant more centralized regulation and detailed plans to be mechanically implemented uniformly throughout the country. The 1984 reform, however, had been finalized under the leadership of Mikhail Gorbachev just prior to his ascent to party chairman. It included large doses of the devolution of responsibility and accountability, later known through his economic reforms. By 1987, Kremlin officials concluded that even more restructuring was needed to actually implement the 1984 program, for it appeared insufficient to simply grant and encourage autonomy. A people trained to accept authoritarian decision making for half of a century needed to be shown how to exercise independence. In 1987, efforts to implement these reforms were redoubled by new mandates to improve the linkage between enterprises and education. Soviet leaders after Stalin routinely lamented the evolution of higher educational institutions into elite institutions, training the offspring of the influential to enter academic life and failing to teach the practical skills necessary to meet human resource planning needs.

In 1988, the State Committee for Public Education emerged through the consolidation of three previously specialized educational ministries. Since then, policies have moved higher educational institutions toward greater autonomy, fiscal responsibility, and accountability. Largely due to economic reforms, currency policy, and a subsequent reduction in government revenue, the policies have encouraged those institutions capable of making their way in an emerging capitalistic economy to do so. Some institutions have attained a status of full autonomy, gaining both control over their governance and contractual authority in exchange for fiscal responsibility. Others have achieved varying degrees of autonomy.

Institutions are encouraged to create linkages with business, industry, international enterprises, and overseas institutions in order to both generate income (preferably in foreign currency) and integrate their programs more effectively with the changing needs of the labor market. Unlike prior reform efforts, however, the latest reforms have not offered the guidance or the safety nets always taken for granted previously. As a consequence, the linkages desired for pedagogical purposes between educational institutions and economic institutions became necessary for the financial survival of the educational enterprise.

system posits a base rate and a system of salary categories. Particularly during recent inflationary trends, the base rates are periodically revised by the Russian government. Regional differences in cost of living also determine the base salary. The Common Rate Schedule has not resolved low salary problems or many of the inequities that, aside from usual differences among salaries, were entering higher education because of rapid rates of inflation and the devaluation and convertibility of the ruble.

In spite of these efforts, faculty remain very pessimistic about future salary trends. Only 6.1 percent consider the prospects for improvement in academic salaries over the next five years as good or excellent. An unfortunate complication of Russia's currency and inflationary difficulties is the deterioration of retirement expectations. Ten percent of faculty see their retirement arrangements as good or excellent, the remainder being more pessimistic. Other fringe benefits are also rated quite negatively. The transition to a market economy has also had an impact on such traditional faculty benefits and perquisites as housing (table 14.22).

As indicated above, research support has been increasingly difficult to obtain. The same is true of institutional travel funds. Over 72 percent of faculty indicate that funds are simply not available. If actual currency is difficult to obtain, payment in kind is more readily available, as 42 percent of faculty rate sabbatical opportunities as good or excellent. The faculty are also more optimistic on job security and prospects for promotion. Less than 10 percent express dissatisfaction with their job security, and only 16 percent are dissatisfied by their prospects for promotion—this may be more for personal than structural reasons.

Work Environment

Although the profession as a whole may be in a period of transition and anxiety, individual responses and individual satisfaction are often based on the immediate, tangible aspects of educational work. Faculty attitudes toward their immediate work environment and toward the important question of collegiality were addressed by a number of questions in the survey. Considering "excellent" and "good" as positive and "fair" and "poor" as negative, the respondents display a positive outlook toward the

Table 14.22

FACULTY ASSESSMENT OF SALARY AND BENEFIT ISSUES (PERCENTAGES)

	EXCELLENT	GOOD	FAIR	POOR	NOT AVAILABLE
Your academic salary	1	7	16	76	0
Prospects for salary improvement in the next five years	4	3	21	55	18
Retirement arrangements	2	8	43	42	4
Paid sabbatical leaves	8	34	36	19	2
Travel funds	0	1	2	26	72
Other fringe benefits	0	2	16	44	38

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Russia).

intellectual atmosphere and faculty morale, both intangibles. Contemporary conditions in Russia often result in substandard physical plant and resources. This is reflected in the negative assessment of classrooms, instructional resources, laboratories, research equipment and instruments, computer facilities, library holdings, secretarial support, and faculty office space. Respondents were evenly split over relationships between faculty and administration (table 14.23).

The perceived absence of a sense of community seems incongruous given the high rating for intellectual atmosphere and the fact that less than 4 percent report faculty morale to be poor. This may point to increasing competition over scarce resources. It may also be symptomatic of changes within the institution that have forced both students and faculty to supplement their incomes through outside, nonacademic activities, thereby removing them from regular interaction. It is no surprise to learn that institutional missions are ambiguous. The change to a market economy pits institutions against one another in competition for students and tuition revenue. New programs are emerging, changing

Table 14.23

FACULTY ASSESSMENT OF CONDITIONS AFFECTING ACADEMIC LIFE (PERCENTAGES)

	EXCELLENT	GOOD	FAIR	POOR	NOT AVAILABLE
Intellectual atmosphere	10	53	33	4	1
Relationship of faculty and administration	3	47	42	8	1
Faculty morale	7	52	37	4	0
Clarity of mission of institution	6	33	47	13	1
Sense of community	5	32	50	12	1
Classrooms	1	10	39	41	8
Technology for teaching	1	16	54	25	5
Laboratories	1	9	43	40	7
Research equipment and instruments	1	6	34	46	14
Computer facilities	1	12	33	40	15
Library holdings	4	34	40	19	3
Faculty offices	1	11	26	42	20
Secretarial support	2	16	37	28	17

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Russia).

the historical missions of many institutions. As noted above, institutions themselves are seeking to alter their names and status—in short, their identities.

Academic cooperation among colleagues is cited as a reason to remain at their current institution by 83 percent of those surveyed. Only 2 percent indicate that they are dissatisfied with their relationships with colleagues. Clearly, collegiality is an important attraction to the professoriate.

Mobility

Russia is also experiencing a dramatic emigration of scholars. The opening of the borders and the decline in real wages of faculty have led to alarmingly high numbers of scholars emigrating. Estimates indicate that as much as 25 to 30 percent of emigration consists of researchers and scholars.[9] Although emigration has attracted established, older scholars, it has a particular attraction for the more mobile younger scholars, thereby exaggerating the growing age differentials in Russian higher education. International mobility prior to 1985, however, was in stark contrast with the present situation. Of Russian faculty surveyed, 99.7 percent earned their highest degree in Russia. This is the highest percentage of native degree holders of the countries surveyed. Only the United States (95.7 percent) and several Western European countries exceed 95 percent.

Mobility within Russian higher education seems less dramatic than that between Russia and other countries, with 72 percent of respondents having worked at only one institution and 91 percent at two or fewer institutions. The survey questions relating to the professors' likelihood of leaving their current institution reveal that economic need plays a large role in faculty mobility. Primary reasons for leaving were income, cited by 63 percent, and resources for research, cited as a negative factor by 44 percent and as a positive factor by 25 percent. Academic reputation of the institution or department (86 percent), collegiality (83 percent), and geographic location (78 percent) were most dominant as reasons to stay at their present institution. The current hard economic climate has not dampened the faculty's institutional pride or collegial ties. The large number of surveys distributed in Moscow and St. Petersburg likely account for the ranking of geographic location as a positive factor. In any case, only 15 percent of those surveyed indicate that they were likely to leave their institution in the next five years. Illustrative of the insecurities of the present transitional period and a "wait-and-see" attitude is the fact that the plurality of faculty, 40 percent, did not know if they were likely to leave their current institution within the next five years (table 14.24).

Time and again, an intellectual vitality rises above the rather

Table 14.24

FACULTY REASONS FOR LEAVING OR STAYING AT THEIR INSTITUTION (PERCENTAGES)

	FOR LEAVING	FOR STAYING	NOT APPLICABLE
Income	63	20	17
Resources for research	44	25	32
Academic reputation of institution or department	6	86	9
Collegial cooperation	6	83	11
Location/region	10	78	12

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Russia).

pessimistic physical and financial environment of recent times. In response to the question of whether this was an "especially creative and productive time" in their fields of study, 50 percent respond positively and only 14 percent negatively. Less than a third of those surveyed indicate that they feel this is a poor time for a young person to begin an academic career in their field. And just over 10 percent regret having chosen an academic career. Coupled with the information regarding mobility in the first section of this chapter, a strong sense of hope and excitement seems to coexist with the pessimism over the present and near future of the profession.

Academic Freedom

Ten years ago, any writing about the Russian faculty would gravitate toward issues of academic freedom, censorship, and human rights in higher education. Academic freedom has not necessarily become a moot question in present-day Russia. When asked their opinions about the priority their government should accord major issues, the issue of human rights ranks first among issues that included basic education; the world economy; environmental quality; population growth; the world food supply; AIDS and other health issues; racial, religious, and ethnic conflicts; and arms control. In response to the question, "Is academic freedom strongly protected in this country?" 77 percent respond negatively.

At the institutional level, opinion is more favorable toward questions of academic freedom, but there is still some hesitancy. Only 21 percent feel that their institution's administration does not support academic freedom. Freedom to determine course content is cited by 44 percent of respondents. The 27 percent who respond that they are not fully free to determine the content of the courses they teach cannot be distinguished from those who are constrained by required syllabi or standardized curricula and those who feel constrained by political or philosophical pressures. Only 15 percent of faculty feel limited in selecting research topics. The removal of overt controls over academic freedom with the democratization of Russian political life has apparently not removed the specter of limitations on academic freedom. For a time, the politics of local organizations, including higher education, mirrored changes at the national level. The old guard was deposed or humbled, and a new orthodoxy of reform ordained. For some, following the new orthodoxy could be as limiting as the old, and this results in a less than euphoric response to questions on academic freedom (table 14.25).

International Contact

Another major topic among Russian academics of a decade ago would have been access to international contacts, overseas travel, foreign visitors, and access to foreign literature in their field of study. In the intervening period, the climate of restriction has eased dramatically. The emigration of large numbers of academics is, for Russian higher education, a negative consequence of the relaxation of political controls. Unfortunately, the economic restrictions of a free market are apparently posing just as effective a barrier to international contact as did political restrictions. Comparing the previous three years with the last ten years, respondents indicate that there has been an increase in the use of sabbaticals to travel

Table 14.25

FACULTY ASSESSMENT OF ACADEMIC FREEDOM (PERCENTAGES)

	AGREE	NEUTRAL	DISAGREE	NOT APPLICABLE
The administration supports academic freedom.	25	53	21	0
I am fully free to determine the content of my courses.	44	27	27	2
I can focus my research on any topic I choose.	64	19	15	2

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Russia).

outside the country. (The terminology used in the Russian version for "study abroad" would lead respondents to include study in Eastern Europe as "abroad," and not necessarily indicate contact with scholars or institutions in formerly noncommunist countries.) There has also been increasing incidence of collaborative projects with scholars from other countries. It is most likely that the financial difficulties of institutions, individual faculty members, and research funding agencies are preventing the more rapid growth of international cooperation between Russian faculty and their colleagues throughout the world (table 14.26).

Government and Higher Education

A series of questions elicit faculty opinion on how government and higher education should prioritize their efforts (tables 14.27 and 14.28). The surveyed faculty rate human rights, the environment, and the elimination of hate violence as their highest priorities for government. Setting the agenda for higher education means prioritizing the goal of preparing students for work above all. The second priority is promoting scholarship and research. In response to questions regarding influence or interference in higher education, 84 percent feel that private individuals and businesses should contribute more to higher education. Perhaps in a more telling statement on how far democratization and the development of a market economy have progressed in Russia, the faculty perceive a much greater threat to the effectiveness of higher education from government bureaucracy than from private special interest groups.

CONCLUSION

The Russian professoriate exhibits some clear preferences in the responses to sections of The Carnegie Foundation survey on teaching, research, service, and governance. There emerges a clear commitment to teaching in institutions of higher education. There is also a clear, although less pervasive, commitment to research. There is little indication that teaching and research are viewed as competing interests by the Russian faculty. The Russian faculty are more likely to indicate that the one benefits from the

Table 14.26

INTERNATIONAL CONTACTS COMPARED OVER THREE-YEAR AND TEN-YEAR PERIODS

	FREQUENCY IN PAST 3 YRS.	FREQUENCY IN PAST 10 YRS.	FREQUENCY IN PAST 3 YRS. AS % OF THOSE IN PAST 10 YRS.
ACTIVITIES BY NUMBER OF OCCURRENCES			
Published abroad	182	474	38
Published in a second language	227	346	66
Organized class for students from abroad	64	76	84
ACTIVITIES BY NUMBER OF MONTHS			
Collaborated with foreign academic on research	220	311	71
Traveled abroad for study or research	110	236	47
Served as faculty in another country	15	183	8
Spent a sabbatical abroad	77	104	64

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Russia).

Table 14.27

FACULTY RANKING OF PRIORITIES FOR GOVERNMENT REGARDING NINE GLOBAL ISSUES (PERCENTAGES)

	PRIORITY			
	HIGHEST	HIGH	MEDIUM	LOW
Human rights	68	28	4	1
Basic education	44	51	5	0
World economy	20	51	25	3
Environmental quality	58	37	4	1
Population growth	13	27	45	15
World food supply	31	36	24	9
AIDS and other health issues	36	38	21	6
Racial, ethnic, and religious conflicts	45	37	14	5
Arms control	33	44	19	4

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Russia).

Table 14.28

FACULTY RANKING OF PRIORITIES FOR RUSSIA OF EIGHT AIMS OF HIGHER EDUCATION (PERCENTAGES)

	PRIORITY			
	HIGHEST	HIGH	MEDIUM	LOW
Educating students for leadership	8	40	42	10
Preparing students for work	61	30	8	1
Life-long learning for adults	13	45	30	12
Preserving the cultural heritage	40	41	13	5
Protecting free intellectual inquiry	37	37	18	8
Promoting scholarship and research	51	35	9	6
Strengthening the nation's capacity to compete internationally	10	36	40	15
Helping to resolve basic social problems	23	43	25	9

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Russia).

other than any of their colleagues surveyed around the world. Beyond teaching and research, Russian faculty engage in considerably less uncompensated service than most of their counterparts, and they do not display the level of enthusiasm for service that they do for teaching and research. Russian faculty also spend somewhat less time than most of their counterparts on administration. Their attitudes toward administration and the governance of their institutions do not deviate significantly from those of their colleagues elsewhere, except where these reflect variations in administrative prerogatives of administrators in different countries.

What seems to distinguish the Russian faculty from their counterparts in other countries is their high assessment of faculty morale in the face of serious concerns over the fiscal integrity of their profession, the conditions in which they must work, their personal financial status, and declining standards of quality. It is this resolve and commitment to their profession on which the next generation of Russian faculty can build.

ISRAEL

Michael Chen, Esther E. Gottlieb, and Ruth Yakir

THE ACADEMIC PROFESSION IN ISRAEL: CONTINUITY AND TRANSFORMATION

THE PURPOSE of this chapter is to describe and analyze the main features of Israeli senior faculty in an international perspective. So far, only one comprehensive study of the Israeli professoriate has been published. Joseph Ben-David has described universities and the academic profession since their establishment.[1] He showed how the Israeli professoriate, by promoting high standards of research and teaching, retained a strong commitment to research and withstood pressures to introduce professional training and mass higher education.

In describing the European roots, rapid growth, diversification of the student body, introduction of new academic degrees and fields of study, and the administration of Israeli universities, Ben-David reached two conclusions. The first was that "the growth of the academic profession in Israel since the establishment of the State in 1948 has been among the most rapid in the world." The second was related to the unity of research and teaching. The Israeli university is based upon the tenet that research and teaching together define the role of the faculty, but that research is antecedent to teaching, a necessary prerequisite for membership in the academic profession, and that publishing research bestows the right to teach.

INTRODUCTION

The tradition of unity of research and teaching was maintained by institutional recruitment policy. The universities tended "to recruit their teachers mainly on the basis of research attainments, and refrained from the creation of a career of college professor and from the creation of a professional degree."[2] The tradition of strict separation between the universities and nonresearch forms of higher education has recently been challenged by the authorization of many academic professional institutions to grant first academic degrees (e.g., bachelor of education), as well as by the opening of numerous professional training departments in research universities. Consequently, faculty members whose main interests are professional training or teaching rather than research have joined the academic profession. At the same time, many research-oriented academics relinquished their double loyalty to research and teaching and either left the academic profession or gave up teaching. The present study describes the conditions of work and attitudes of the older and newer segments of the Israeli academic profession in the face of growing challenges.

The Development of the Double System

The double system in Israeli higher education is characterized by the formal distinction between the university sector and the nonuniversity sector. The first two Israeli universities were inaugurated in 1924 and 1925. The Hebrew University of Jerusalem and the Technion (Israeli Institute of Technology) in Haifa followed the academic model of the German university, which integrated research and teaching. However, their organization and administration were influenced by the spirit of collective participation that prevailed in the Jewish community. Some of the institutions in the nonuniversity sector were founded at the turn of the century as schools of professional training granting professional certificates. Only in the last few decades were they authorized to grant first academic degrees. At present, the Israeli system of higher education consists of twenty-two institutions: six research universities, one research institute, an "open" (distance) university, six colleges granting various professional degrees, and eight academic teachers' colleges. Eleven university extension campuses are also supervised by the Council of Higher Education (CHE), but are not regarded as independent institutions with degree-granting status.

All the institutions operate by virtue of the Law of Higher Education of 1958, under the authority of the CHE, and are budgeted and partially financed by the Planning and Grants Committee (PGC). According to the CHE, the main purpose in opening many new professional institutes has been "to enlarge and accommodate the system of higher education in order to respond to growing demands which stem from various sources and indicate new kinds of needs."[3] However, the CHE is very apprehensive about the inevitable expansion, diversification, and professionalization of higher education.

The Student Body

One of the main features of the Israeli system of higher education is the rapid growth in enrollment. This is a consequence of the steadily increasing number of high-school graduates who pursue higher education. The size of an Israeli cohort is about 115,000 students. About 85 percent of this cohort attend senior high school, and about one-third successfully pass the matriculation examinations, which are a prerequisite for university study. About 20 percent of a cohort are admitted to a university, and about 18 percent to other institutes of higher education.[4] In 1989–90, 128,498 students were studying in Israel in all types of institutions of postsecondary and higher education, with 55.7 percent enrolled in research universities and 69.3 percent working toward an academic degree (table 15.1). Between 1976 and 1988, the student population more than doubled.

The enrollment ratio of female students in higher education is high and exceeds the proportion of women in the total population. In 1990–91, females constituted 54.3 percent of all first degree students, 50.6 percent of all second degree students, and 42.4 percent of all third degree students. In 1990–91, 72.2 percent of all students were studying toward the first academic degree, 83.6 percent at universities, and the rest (16.4 percent) at colleges. Since 1985–86, the yearly growth rate of enrollment at colleges has been greater than that at universities.

Graduate degrees are awarded by the six research universities and the Weizmann Research Institute. Graduate students numbered 22,400 in 1990–91, and comprised 31.5 percent of all university students. Though equality of educational opportunity for all groups in Israeli society is

Table 15.1

DISTRIBUTION OF THE TOTAL STUDENT BODY IN 1990, BY TYPE OF INSTITUTION

	NUMBER OF INSTITUTIONS	NUMBER OF ACADEMIC DEGREE STUDENTS	OTHER STUDENTS	TOTAL
Research universities	7	67,750	3,820	71,570
The Open University	1	13,007		13,007
Academic colleges	13	8,286		8,286
Nonacademic post-secondary	161		24,635	24,635
Yeshivot (religious colleges)	NO DATA		11,000	11,000
Total	182	89,043	39,455	128,498

SOURCE: Israel, Central Bureau of Statistics, 1990.

constantly on the public agenda, only the push to recruit women has been very successful. In particular, efforts to recruit Jewish students of Sephardic background have been disappointing. In 1969, 13.5 percent of the total student body were of Sephardic background; in 1989, they were 27.4 percent of the total. However, Sephardic pupils have comprised approximately 50 percent of the elementary school population for many years. Students of Arab background are also underrepresented. While they constituted about 24 percent of all elementary school pupils in 1989, they comprised only about 3.9 percent of university students.[5]

The Faculty

From the early 1960s until 1983, the number of professors and lecturers grew at a faster rate than the student population. Since then, the total number of faculty has remained practically unchanged, in spite of the rapid growth of the student body. In 1991, the senior staff at all Israeli universities numbered 4,474, compared with 4,074 in 1979. The relative decline in the size of the academic workforce has resulted in larger classes, fewer teaching and research assistants, and less time and fewer resources for research. In contrast with the rapid growth and diversification of the student body, the academic staff has changed very little. The average age has risen, and the percentage of women among the senior faculty of the academic departments of the universities grew from 11 percent in 1966 to 20 percent in 1988.[6] While 11 percent of the faculty are of Asian-African (Sephardic) origin, only 1.7 percent are non-Jews.[7] Most of the changes in the social composition of the senior faculty were a result not of a change in academic criteria for recruitment, which always required a Ph.D. and scientific publications, but of the diversity of new institutions and career paths. A growing number of experienced professionals now join the ranks of higher education in order to teach and train a new generation of professionals, rather than to engage in research. It is pertinent to consider how they will affect the traditional research orientation of the Israeli professoriate.

Financial Strain

The long tradition of "unity of research and teaching" has been severely challenged during the last decade not only by the diversification of the professoriate, the student body, and the emergence of new institutions and the new kinds of faculty and degrees, but also by growing financial pressures and the subsequent decline in the status, working conditions, and standard of living of the professoriate. Higher education, like all other levels of education in Israel, is dependent upon state funding. State funding of higher education declined from 24.8 percent of total educational expenditure in 1980 to 15.6 percent in 1989. By the mid-1980s national expenditure on higher education declined drastically, with state financing averaging only 52 percent of the institutional budgets. The financial crisis has had a differentially negative effect on the funding of higher education and on academic salaries. During the 1980s university salary scales steadily deteriorated. In 1983, the mean income of social scientists in the civil service was only 75 percent of mean faculty income.[8] By the early 1990s their earnings were up to 20 percent more than those of the tenured faculty. These figures indicate the relative decline in status of the academic profession in comparison to that of professional civil servants in the last decade. A series of strikes and labor disputes was the Israeli professoriates' response to the combined pressures of a larger and more diversified student body, heavier teaching loads, decreased resources and time for research, changing standards of academic excellence, declining salaries, and loss of status and prestige.

THE SAMPLE

A diversified sample of the senior academic faculty in universities and colleges participated in this survey, which is well timed from an Israeli point of view. After many years during which only research universities had been considered legitimate higher education, a rapid change is now taking place. For example, the daily newspaper *Ha'aretz* reports that the CHE has decided to grant some academic status, gradually, to many postsecondary educational institutions.[9] The gradual incorporation of college lecturers as part of the senior academic faculty is now a central issue on the agenda of higher education in Israel. The inclusion of both university and college faculty in the same sample was carried out for the first time in this study. The sample represents the senior academic faculty of six research universities as well as the academic faculty of fourteen "nonresearch" institutions. In 1991, there were 7,583 full-time teaching and research positions in the six universities. Fifty-nine percent, or 4,474 of these posts were occupied by senior academic staff—lecturers, senior lecturers, associate professors, and full professors. Excluding the medical and law faculties (according to the research plan), the senior faculty numbered 3,937. There were 7,046 teaching positions in postsecondary education in 1990. About 16.5 percent (1,164) of them were occupied by academic faculty in colleges. According to these estimates, in 1992 the total number of senior faculty (excluding medicine and law) in all types of higher education in Israel, was 5,101. The faculty were distributed as follows: 40 percent in two large universities, 38 percent in four smaller universities, and 23 percent in fourteen colleges.

The questionnaire was sent to a sample of senior faculty in institutions of higher education recognized by the Israeli CHE (six universities, six professional colleges, and eight teachers' colleges). The Open University, which is a noncampus institute and does not employ a full-time tenured faculty, and the Weizmann Institute of Science, which grants only advanced degrees and specializes in research, were not included in the research population. The questionnaires were strictly anonymous and the respondents were not asked to name their institution, but to indicate its size. Institutions of five thousand students or less were identified as colleges, institutions of five thousand to ten thousand students as small universities, and institutions of ten thousand or more students as large universities. The data in table 15.2 show that almost half of the respondents (46.3 percent) work in one of the large universities; 29.2 percent report that they work in one of the smaller universities, and 24.5 percent in a college. There is no proper explanation for the slight overrepresentation of large universities and colleges and the slight underrepresentation of smaller universities in the response rate.

The figures in table 15.2 suggest a reasonable similarity between the

Table 15.2

SENIOR FACULTY POPULATION, SURVEY SAMPLE, SURVEY RESPONDENTS, AND FEMALE RESPONDENTS, BY TYPE OF INSTITUTION (PERCENTAGES)

	SENIOR FACULTY[a]	SURVEY SAMPLE	ALL RESPONDENTS	FEMALE RESPONDENTS
Large universities (10,000 students or more)	39.5	44.8	46.3	20.6
Small universities (5,000–10,000 students)	37.7	34.9	29.2	18.0
Professional colleges (Up to 5,000 students)	22.8	20.3	24.5	44.5
Total	100.0	100.0	100.0	27.9
(N)	(5,107)	(2,225)	(502)	(137)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

[a] Israel, Central Bureau of Statistics, 1992.

group to which the 2,225 questionnaires were addressed and the 502 respondents. The respondents constitute 22.5 percent of the faculty surveyed and 9.8 percent of the senior faculty. We cannot provide an explanation for the low response rate, apart from the reluctance of faculty to respond, in the midst of a grave labor dispute, to an external survey in the form of an unusually long and detailed questionnaire.

Females comprise approximately 20 percent of the senior faculty of universities.[10] Among the university respondents they represent 20.6 percent of faculty at large universities, 18 percent at small universities, and 44.5 percent at colleges. They constitute 27.9 percent of the respondents. Once again, the gender distribution of the respondents resembles the distribution among the senior faculty in Israel.

Another way to verify the representativeness of the sample is to consider the distribution by academic rank (table 15.3). There are four academic ranks in Israeli universities: lecturer (nontenured), senior lecturer, associate professor, and full professor (tenured). According to the regulations of the Ministry of Education, faculty in the colleges of education are ranked as either tenured or nontenured. The tenured faculty at the teachers' colleges are classified as senior lecturers and the nontenured as lecturers. As most of the faculty in the academic programs are tenured, they are classified as senior lecturers. This is a possible explanation for the overrepresentation of senior lecturers and underrepresentation of lecturers in this type of institution. The eight other colleges classify ranks in various ways, and the respondents' replies were recorded on the basis of the university classifications. The findings in table 15.3 indicate that each academic rank is well represented in the sample of the universities. We may conclude that the sample is somewhat biased because of the low response rate and variations in the response rate among different institutions. However, since the number of respondents and the variability of their responses are large enough, the sample provides a proper description of the academic profession.

Table 15.3

SENIOR FACULTY POPULATION AND RESPONDENTS, BY ACADEMIC RANK (PERCENTAGES)

	SENIOR UNIVERSITY FACULTY		ALL SENIOR FACULTY	
	POPULATION[a]	SAMPLE	FACULTY SURVEYED	ALL RESPONDENTS
Full professor	26	24	22	20
Associate professor	25	30	21	25
Senior lecturer	29	27	25	35
Lecturer and others	19	19	33	20
(N)	(4,474)	(384)	(5,107)	(502)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

[a] Israel, Central Bureau of Statistics, 1992.

HIGHLIGHTS OF THE SURVEY

Personal Background: Sex, Institution Type, Field of Study, and Rank

The data shown in tables 15.2 and 15.3 suggest that the six universities resemble each other, regardless of size, but differ significantly from the fourteen colleges in their gender and rank composition.[11] As expected, the percentages of males (79.4 percent) and of professors (56.6 percent) are higher in the universities than in the colleges (55.5 percent males and 14.4 percent professors). International comparisons indicate that the number of females in the Israeli sample (27.6 percent) is close to the number of females in the samples for Sweden, Russia, the United States, and Chile. Eighty-six percent of the respondents hold a Ph.D. or its equivalent. About 8 percent of the respondents are still studying for an advanced degree, compared with 7 percent in the United States (last in rank order), 49 percent in Brazil (first in rank order), 36 percent in Russia, 33 percent in Sweden, and 15 percent in England.[12]

A total of 490 respondents list sixty-four fields of study in which they had earned their highest academic degree. These were classified in six categories as follows: the hard sciences—engineering and architecture (10 percent), mathematics, physical and biological sciences (29 percent); and the soft sciences—social sciences (21 percent), humanities (29 percent), education (8 percent), and the arts (2 percent). Field of study is strongly associated with sex, rank, type of institution, and preference for research versus teaching. Of the respondents who received degrees in the hard sciences (mathematics, natural sciences, and engineering) 84 percent are male, compared with only 64 percent of those who hold degrees in soft sciences (social sciences, humanities, education, and the arts). While the proportion of females in both the student body and the professoriate is constantly growing, females are significantly underrepresented in the upper ranks and in the hard sciences.

As shown in table 15.4, hard sciences, compared to soft sciences, usually include larger percentages of males, those who work in universities, professors, and those who prefer research to teaching. There is a

Table 15.4

PROFILE OF THE SURVEY SAMPLE, BY ACADEMIC DEPARTMENT (PERCENTAGES)

	ENGINEERING	NATURAL SCIENCE	SOCIAL SCIENCE	HUMANITIES	EDUCATION	ARTS	ALL FACULTY
Earned degree in Israel	54	70	33	63	54	56	57
Earned degree abroad	46	30	67	37	46	44	44
Female	13	16	26	33	76	56	28
Male	87	84	74	67	24	44	72
Work in universities	85	87	88	33	30	33	76
Work in colleges	15	13	12	67	70	67	24
Professors	68	62	41	34	21	11	44
Other ranks	32	38	59	66	79	89	56
Prefer research	84	79	66	48	32	56	62
Prefer teaching	16	21	34	52	68	44	38
Total	100	100	100	100	100	100	100
(N)	(51)	(144)	(105)	(141)	(40)	(9)	(490)
Marginal distribution %	10	29	21	29	8	2	100

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

higher percentage of graduates of Israeli universities (66 percent) in the hard sciences than in the soft sciences (51 percent). This suggests that Israeli universities consider themselves capable of granting the highest academic degrees in the natural sciences, while still relying on international centers for recruiting new faculty in the social sciences.

Age and Years in the Profession

The mean age of the respondents is 50.5 years and the standard deviation of 9.3 is rather narrow; about 80 percent of the respondents are between forty and sixty years old. The mean number of years of employment in higher education is 17.8, and outside of it, 4.9 years. Forty-four percent of the respondents have worked in one institution throughout their academic careers. Only 10 percent have worked in three or more institutions. The process of climbing the rank ladder is slow—approximately 32 percent of those over the age of fifty have not reached the rank of professor. Of the countries participating in the survey, only Japan and Russia have older faculty. Compared to faculty in other countries in the Carnegie survey, the Israeli faculty has worked longer in higher education and at the present place of academic employment.

Terms of Employment

Most of the respondents work full time (81 percent) and are tenured (77 percent). Part-time employees constitute 19 percent of the sample. A relatively greater proportion of them work in colleges, specialize in soft sciences, are found in the lower ranks, and are younger than the full-time faculty (table 15.5). Significant differences in terms of employment and in conditions of work indicate that the academic profession is very stratified. The gap between young, low-ranking, part-time college faculty and older, higher-ranking, better-paid, full-time university faculty is very wide indeed. The data also indicate that a significant proportion of the faculty works in a tenured position in one institution exclusively (47 percent). Members of this group have been defined as committed to their institution.

Table 15.5

TERMS OF EMPLOYMENT, BY INSTITUTION, AGE, ACADEMIC DISCIPLINE, RANK AND INCOME (PERCENTAGES)

	FULL-TIME	PART-TIME	ALL FACULTY
Work in colleges	19	48	25
Work in universities	81	52	76
Age forty-five or under	19	37	22
Age forty-six and over	81	63	78
Soft sciences	56	79	61
Hard sciences	44	21	39
Professors	52	12	44
Other ranks	48	88	56
Income of $25,000 or less	61	82	65
Income of more than $25,000	39	18	35
Marginal distribution %	81	19	100

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

Income

The median annual income reported by the respondents is about $21,400. The reported amount is probably an underestimate of real income. According to official reports, the average annual income of an instructor in a teachers' college in 1992 was 70,837 NIS ($29,000).[13]

The official income of the Israeli academic profession is determined by rank, administrative position, and seniority; productivity and reputation are not considered (table 15.6). While a third of full professors report an income of $25,000 or less, 84 percent of lecturers report such an

Table 15.6

TOTAL YEARLY INCOME, BY ACADEMIC RANK (PERCENTAGES)

	FULL PROFESSORS	ASSOCIATE PROFESSORS	SENIOR LECTURERS	LECTURERS AND OTHERS	ALL FACULTY
$25,000 or less	33	62	74	84	61
Above $25,000	67	39	26	16	35
Marginal distribution %	19	24	37	20	100
(N)	(90)	(117)	(178)	(94)	(479)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

income. Seventy-six percent of females report an income of $25,000 or less; only 56 percent of males report such an income. Most of the respondents rate their yearly academic income as poor (64 percent) or fair (30 percent), and only 7 percent rate it as excellent or good. The reported annual income does not include retirement payments, paid sabbaticals, or travel funds. These benefits are relatively generous and are rated much more favorably. Respondents rate as excellent or good the sabbatical funding (72 percent), travel funds (69 percent), and retirement payments (34 percent). In most cases, the positions and rewards available to college faculty (24 percent of the sample) are inferior to those enjoyed by university faculty. The growing tension between academics at universities and those at colleges has not yet become apparent, probably because of geographical distances, institutional separation, and differences in job requirements.

Working Conditions

Public opinion in Israel finds the terms of employment of the academic profession confusing. They are simultaneously more demanding and more favorable than those of other occupations. Classes meet only twenty-eight weeks of the year. The official teaching load is reduced as academic rank rises: twelve to sixteen hours per week of classroom teaching for the junior staff, eight hours per week for lower ranks of the senior faculty, and six hours per week for full professors. Teaching loads also vary by type of institution (twelve to sixteen hours per week in teachers' colleges), and by level of appointment (eight hours a week for a lecturer in a regular academic track position and twelve hours for one in a professional track position). Faculty filling administrative or service posts may have reduced teaching loads.

In the questionnaire, teaching is defined as "preparation, classroom instruction, advising students, reading and evaluating student work." Research activity is defined as "reading literature, writing, conducting experiments and fieldwork." While classroom instruction is considered as the first and foremost daily commitment of faculty, it is the production of research that distinguishes mainstream from marginal academic faculty in Israel. Faculty are expected to devote most nonteaching time to research, especially when classes are not in session. Research and publication are the main criteria for promotion and the pressure to produce is intense, continuing for many years until tenure is granted and even thereafter. Since research activity is usually organized without external control or supervision, it is quite difficult to determine the time and effort a faculty member devotes to research and publication, or even to teaching, advising, and counseling, administration and service, or paid work outside the institution.

Teaching, Research, and Service

Faculty report a work week of 49 hours when classes are in session and of 47 hours when classes are not in session (table 15.7). The high standard deviations around the weighted means (accounting for differences in response rates) indicate high variability both in total work time and time allocation to different activities in both periods of work. While about 37 percent of the time is devoted to teaching and 43 percent to research during the semesters, about 16 percent is devoted to teaching and 66 percent to research between the semesters. The rest of the time is devoted to other activities.

The reported work week of forty-eight hours is relatively long, compared with the official work week of forty-two hours for the civil service sector or for researchers in private organizations. However, the freedom enjoyed by the academic faculty to organize their workday by themselves is envied by large segments of the population.

Allocation of work time to teaching and to research differs greatly among various categories of academic faculty. The analysis aims at indicating how much of the variation in time spent on teaching and on research is explained by four characteristics: gender, type of institution, rank, and preference for teaching or research (table 15.8).

The multiple analysis of variance indicates that the reported amount of time devoted both to teaching and to research is significantly explained by the four variables. About 19 percent of the variance in hours spent on research, and 13 percent of hours spent on teaching are accounted for by gender, type of institution, rank, and preference for teaching versus research. The respondents report more time spent on research than on teaching,

Table 15.7

MEAN WORK HOURS PER WEEK, BY ACTIVITY

	TEACHING	RESEARCH	SERVICE	ADMINISTRATION	OTHER	TOTAL[a]
CLASSES IN SESSION						
Mean	17.89	20.86	6.27	6.00	4.01	48.58
SD	9.85	12.25	6.45	5.65	3.58	17.94
(N)	(483)	(457)	(266)	(398)	(332)	(485)
CLASSES NOT IN SESSION						
Mean	7.49	30.82	7.01	5.67	4.86	46.82
SD	6.75	15.00	8.02	6.13	3.98	18.18
(N)	(383)	(428)	(233)	(295)	(312)	(446)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

[a] Means are weighted by number of respondents in each activity.

Table 15.8

A MULTIPLE ANALYSIS OF VARIANCE: TEACHING AND RESEARCH HOURS PER WEEK, WHEN CLASSES ARE IN SESSION

	N	TEACHING (MEAN HOURS)	*P*<	*N*	RESEARCH (MEAN HOURS)	*P*<
GENDER						
Females	111	21.21	0.000	100	15.80	0.000
Males	324	16.62		313	22.24	
INSTITUTION						
Colleges	108	19.56	0.280	92	15.36	0.001
Universities	327	17.21		321	22.20	
RANK						
Professors	205	16.54	0.001	204	21.94	0.040
Senior lecturers and lecturers	230	18.91		209	18.14	
PREFERENCES						
Teaching	165	20.34	0.012	149	14.70	0.001
Research	270	16.29		260	24.05	
Total (weighted)	483	17.89		457	20.86	
R^2		0.127	0.001		0.189	0.000

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

and the variance in time spent on research is better explained than the variance in time spent on teaching.

Females spend many more hours on teaching and fewer hours on research than do males. Regardless of gender, professors spend less time on teaching and more on research than lecturers and senior lecturers. Contrary to expectations, college faculty are not significantly more involved in teaching than are university faculty, but university faculty do spend more time on research, regardless of gender and rank. Faculty who lean toward teaching (fully or partially) spend much more time on teaching and much less time on research, compared with faculty who prefer research. It should be noted, however, that the total variance in teaching (13 percent) and research loads (19 percent) explained by the independent variables is statistically significant but quite moderate. This suggests that faculty, on the whole, are relatively flexible in deciding how much time to spend at work and how to divide it among teaching, research, and other activities. Much of this is done according to personal considerations.

Membership and Participation in Scientific Organizations

In addition to spending time on work, academics are expected to join local and international scientific societies and participate in scientific conferences. Most of the respondents (92 percent) report that they are members of at least one local professional organization, and 91 percent are members of at least one international professional organization (table 15.9). Only a small number of respondents report that they have not participated in any conferences in Israel (7 percent) or abroad (10 percent) in the previous three years. However, we note that 20 percent of respondents did not reply to these questions.

There are weak but significant correlations among the four variables. Respondents who are more active in local societies and conferences in Israel are also more active in the international arena. It seems that Israeli faculty conceive of scientific activity in international terms and consider the Israeli scientific establishment a branch of the international academy.

Table 15.9

MEMBERSHIP IN SCIENTIFIC SOCIETIES AND PARTICIPATION IN SCIENTIFIC CONFERENCES (PERCENTAGES)

	SOCIETIES		CONFERENCES	
	IN ISRAEL	ABROAD	IN ISRAEL	ABROAD
NUMBER OF ACTIVITIES				
0	9	9	7	10
1	43	34	13	12
2–4	46	49	55	48
5+	3	8	26	30

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

Commitment to the Academic Discipline, Department, and Institution

Although the daily life of a faculty member is influenced to a great extent by institutional organization and resources, and by the academic reputation and productivity of his or her colleagues in the department, what really counts for senior faculty is their commitment to the academic discipline—namely, familiarity with the present agenda of research and teaching in their fields. Interestingly enough, field of study seems to have no effect on whether respondents consider departmental affiliation to be "very important."

The respondents' commitment to their academic field is comparatively high. Most report that their academic field is very important to them (75 percent). Second in importance is the department (55 percent), and third is the institution (42 percent); in this, Israeli respondents resemble faculty in Chile, Korea, and the United States. They also resemble faculty in most other countries in ranking the importance of the academic field much above the department and the institution.[14]

The positive attitudes to the academic field, department, and institution are supported by other findings: 64 percent agree that this is "a creative and productive time in their field"; 53 percent think that it is a good time to begin an academic career, while only 32 percent think it is a poor time to begin an academic career; 85 percent would become academics if they had to choose again; 64 percent disagree with the statement that their job is a source of considerable personal strain; and 31 percent claim that they are "very satisfied," with an additional 42 percent describing themselves as "satisfied," with their colleagues. These figures indicate the strong attachment of faculty to their fields of study, departments, and institutions—in that order.

Perceptions of the Job and the Workplace

In response to the question, "How likely is it that you will leave your institution in the next five years?" only 8 percent consider this to be very likely and an additional 5 percent think it possible. These findings indicate a strong sense of affiliation with the workplace. Important reasons to stay in the same workplace are academic reputation (53 percent), cooperation among colleagues (50 percent), and geographical location of the institution (57 percent). Two main reasons for leaving are low income (39 percent) and lack of resources for research (41 percent). But in view of the scarcity of openings in the academic profession, attachment to the workplace may indicate lack of alternatives rather than job satisfaction. This is especially true of older faculty who have worked for many years in the same institution.

Financial Remuneration

Although faculty are extremely dissatisfied with regular academic income, which determines standard of living and quality of life, they are very satisfied with the availability of paid sabbatical leave and travel funds (table 15.10). Travel funds and sabbaticals are intended to ensure continuous interaction between the relatively isolated Israeli academics and their colleagues in the centers of scholarly activity. The possibility of exploiting these funds to the fullest is formally tied to scientific

Table 15.10

RESPONDENTS' RATING OF ACADEMIC SALARY AND PAID SABBATICALS (PERCENTAGES)

	EXCELLENT OR GOOD	FAIR OR POOR	(N)
Academic salary	7	93	(463)
Paid sabbatical	72	28	(485)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

publication or other academic projects. The high productivity of Israeli faculty is attributed in part to this arrangement. Funds for traveling and living abroad are important not only because they supplement low annual salaries, but also because they facilitate and legitimize international connections and a sense of belonging to a worldwide academic elite. The privilege allows academic faculty to travel abroad for several weeks every year and to spend a full year abroad every six years. The opportunity to work abroad for short periods is very unique in the Israeli context and is envied by many. Faculty consider travel funds and paid sabbaticals to be very important benefits. To safeguard these privileges, they have agreed to gradual salary cuts over a long period of time.

During the long and bitter struggle over salaries involving the faculty, the administrations of the various institutions, and the government, administrators demanded that faculty relinquish their privileges in return for substantial additions to regular salary increases. This issue prolonged the strike and intensified the struggle, but faculty were able to retain travel and sabbatical privileges.

Rating the Institution and the Students

Respondents were asked to evaluate five features about their workplace that affect academic life. The most positively rated item was the

Table 15.11

RATING OF CURRENT STUDENTS AND FORMER STUDENTS (PERCENTAGES)

	N	CURRENT STUDENTS ARE EXCELLENT OR GOOD
RANK		
Professor	219	55
Others	268	53
FIELD OF STUDY		
Hard sciences	204	55
Soft sciences	283	50
PREFERENCE OF TEACHING VS. RESEARCH		
Teaching-oriented	179	53
Research-oriented	291	55
EVALUATION OF FORMER STUDENTS		
Better now	159	69
Same or better before	328	46

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

intellectual atmosphere of the institution (58 percent rate it as excellent or good). Clarity of institutional mission is rated as excellent or good by 46 percent of the respondents, and the faculty/administration relationship is rated as excellent or good by 48 percent. About 44 percent rate faculty morale as good or excellent, but sense of community is so rated by only 35 percent. Thirty-three percent of the respondents report that their students are better now than five years ago (table 15.11). A greater proportion of professors than the other ranks, of faculty in the "hard" sciences than in the "soft" sciences, and of research-oriented faculty than teaching-oriented faculty report that their students are excellent or good.

Job Satisfaction

Responses to the six items designed to measure job satisfaction indicate great variability. The respondents report most frequently that they are highly satisfied with job security (43 percent), the courses they teach (33 percent), and their relations with their colleagues (31 percent). However, only 11 percent are very satisfied with promotions, 4 percent with the way the institution is managed, and only 6 percent are very satisfied with their job situation as a whole. Strangely enough, the rating of job situation as a whole is very low, compared to the other items in the same set of questions. This finding suggests that when asked about their job, they respond with negative aspects such as promotion, institutional management, and salary scales, rather than with positive aspects such as teaching, job security, and collegiality. To deal with job satisfaction as a comprehensive concept, a reliable scale was constructed using six relevant items (table 15.12). The mean of the job satisfaction scale is 2.43 and the standard deviation is 0.69; the lower the score, the higher the respondent's satisfaction.

We note a tendency toward uniformity of job satisfaction in most of the subgroups in the sample. Some of the differences are not statistically significant. The most satisfied group is tenured faculty who work in one institution (mean = 2.37). The least satisfied group is lower-ranking faculty (mean = 2.57). Professors are significantly more satisfied than are nonprofessors, and males more than females. Both the low level of job satisfaction, and the prevalence of such sentiments among all sections of the academic profession, reflect the grave condition of the academic establishment at the time of the study.

The opinions of the Israeli faculty about job satisfaction are very inconsistent, compared to faculty in other countries. On the one hand, the job is not considered a source of personal strain. Moreover, Israel is second only to Korea in its positive rating of job security. It is third highest in the positive assessment of faculty/administration relationships, and fourth, after the United States, Sweden, and Australia, in rating the quality of current students. On the other hand, in contrast to these positive evaluations, Israeli respondents rate their current salary and the

Table 15.12

MEANS OF JOB SATISFACTION SCALE, BY SELECTED VARIABLES

	N	MEAN	STANDARD DEVIATION	*P*<
SEX				
Female	137	2.50	.67	0.03
Male	360	2.40	.69	
RANK				
Professor	227	2.43	.69	0.03
Senior lecturers and lecturers	266	2.57	.76	
FIELD OF STUDY				
Hard sciences	193	2.39	.66	NS
Soft sciences	300	2.45	.78	
INSTITUTIONS				
Colleges	117	2.45	.82	NS
Small universities	139	2.45	.63	
Large universities	246	2.41	.67	
RESEARCH/TEACHING				
Research-oriented	299	2.40	.64	NS
Teaching-oriented	187	2.46	.75	
INSTITUTION COMMITMENT				
Fully committed	268	2.37	.64	0.03
Other	233	2.50	.73	

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

Note: NS = not statistically significant prospects for its improvement very negatively. On these issues, they are at the bottom of the ladder, together with Russian faculty.[15]

Professional Commitment: Research Versus Teaching

Two opposing approaches to higher education are being debated in many countries. The mutuality approach, which is firmly rooted in academic ideology and practice, holds that research and teaching are complementary roles and activities, justifying and enhancing each other. In contrast, the competition approach regards teaching and research as competitive, rather than complementary.[16] Several items on the questionnaire are related to this controversy and may serve to uncover attitudes and opinions of various segments of faculty relating to the emerging conflict between the traditional commitment of higher education to scientific discovery and growing demands for mass higher education.[17] The findings of the survey indicate that the majority (62 percent) of faculty are research oriented: 14 percent prefer research and 48 percent affirm both teaching and research but lean toward research. Another 27 percent affirm both but lean toward teaching, and 11 percent prefer teaching. (See table 15.13 for some variables that correlate with the research/teaching continuum.)

The findings in table 15.13 show that the preference for teaching over research is much more common among the "newcomers" to higher education: college faculty, women, lower-ranking faculty, and faculty in the soft sciences (the humanities, social sciences, arts, and education). As expected, there is a high positive correlation between preference for research and number of published articles. Nevertheless, it should be emphasized that a significant segment of faculty in the large research universities, of male faculty, and of faculty in the hard sciences prefer teaching. In general, faculty report that their training for research has been superior to their training for teaching.

The findings show a high degree of disagreement among the respondents about the research/teaching relationship (table 15.14). About one-quarter, on average, subscribe to the mutuality point of view, which holds that teaching and research support each other. The attitude of

Table 15.13

TEACHING/RESEARCH PREFERENCE OF ISRAELI FACULTY (PERCENTAGES)

	LEANING TOWARD TEACHING	LEANING TOWARD RESEARCH	*N*	*P*<
INSTITUTIONS				
Large universities	28	73	246	0.000
Small universities	34	66	139	
Colleges	73	28	117	
SEX				
Females	62	38	136	0.000
Males	30	70	350	
FIELD OF STUDY				
Soft sciences	39	61	227	0.000
Hard sciences	24	76	266	
ARTICLES PUBLISHED				
No answer or none	63	37	379	0.000
One or more	26	74	123	
RANK				
Professors	26	74	220	0.000
Senior lecturers and others	54	46	279	
TRAINING RATED AS				
Excellent for research	21	79	192	0.000
Excellent for teaching	45	55	152	
Total	38	62	492	

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

Table 15.14

INFLUENCE OF TEACHING AND RESEARCH (PERCENTAGES)

	POSITIVE	NO INFLUENCE	NEGATIVE
Research—influence on teaching	34	42	25
Teaching load—influence on research	10	60	32

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

about 30 percent is that there is competition between the two roles. About 50 percent tend to assume that there is no relationship between teaching and research. Finally, it should be noted that 39 percent agree or strongly agree that excellence in teaching should be the main consideration in promotion.

It appears that a large percentage of Israeli academics accept the supposition that research and teaching are complementary, though there is a significant tendency to view the two academic activities as competitors. However, tradition and the absence of clear criteria to measure productivity and excellence in teaching have served to entrench research productivity as the sole criterion for appointment, tenure, and promotion. Ranking of research as more important than teaching is widely accepted even in professional university departments such as social work, education, and the arts and among teachers and faculty at professional colleges.

The diversification of higher education by the inclusion of professional, nonresearch institutions under the umbrella of the CHE and by the establishment of new academic programs and degrees necessitates fresh examination of the mutuality versus competition approaches to the job definition of the academic profession. It is clear that at present the majority of Israeli senior faculty regard research activity as the most salient feature of the academic profession.

Teaching as an Academic Activity

The introduction to the section on professional activity in the questionnaire notes that "teaching is at the very core of academic life." Although teaching may be less important than research as a criterion for tenure and promotion, it is more salient in everyday practice. The activities of faculty are organized around instructional obligations. While research is done independently, teaching is public action, subject to public criticism. Moreover, there are few established criteria for evaluating teaching, and standards of excellence are fraught with ambiguity.

Some 29 percent of the respondents teach only undergraduate courses, usually in colleges; 62 percent teach both graduate and undergraduate courses; and only 6 percent teach graduate courses exclusively, while 3 percent do not teach. It seems that the majority of university faculty teach both graduate and undergraduate students. Approximately 68 percent of class time is devoted to lectures, 26 percent to discussion, and 7 percent to other activities (table 15.15).

Additional analysis shows that the mean size of the smallest undergraduate introductory course taught by the respondents is 32 students and the largest is 71 students. Only 4 percent of respondents report teaching classes of one hundred or more students. Since most faculty actually lecture for one to ten hours per week and most classes are not very large, it seems that the teaching load is not too heavy by international standards.

Students' Requirements

One of the interesting findings evident in table 15.16 is that regular classroom attendance is required of students at all levels by only a minority of faculty. Examinations are required to the greatest extent in introductory courses (56 percent), to a slightly lesser extent in other undergraduate courses (53 percent), and in only 26 percent of graduate courses. Long papers and oral presentations are required most frequently in graduate courses. The findings fit accepted notions of evaluation norms. Introductory courses are large, impersonal, and require testing.

Table 15.15

USE OF CLASS TIME BY METHODS OF TEACHING AND LEVEL OF COURSE (PERCENTAGES)

	N	% OF SAMPLE	LECTURES	DISCUSSIONS	OTHER ACTIVITIES	TOTAL
Undergraduates only	144	29	62	31	8	100
Graduates and undergraduates	303	62	75	23	2	100
Graduates only	29	6	59	37	5	100
Do not teach	13	3	—	—	—	—
Total	489	100	68	26	7	100

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

Table 15.16

REQUIREMENTS FOR SUCCESSFUL COURSE COMPLETION (PERCENTAGES)

	INTRODUCTORY UNDERGRADUATE COURSES	OTHER UNDERGRADUATE COURSES	GRADUATE COURSES
Regular participation	37	47	35
Write short papers	29	34	22
Write one long paper	8	27	38
Make a formal oral presentation	4	21	28
Participation in class discussion	20	38	36
Take one examination	37	41	22
Take two examinations or more	19	12	4
No specific requirements	2	2	1

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

Note: *N* = 502.

Other undergraduate studies are specialized and require many kinds of performances and products, while graduate studies are independent and personal and require scientific or professional products like long papers or oral presentations. It should be noted that the differences in requirements for undergraduate and graduate students are not qualitative in nature; rather, they differ in emphasis, and less than one would expect.

Attitudes Toward Students

On the one hand, teaching is conceived of as a mission that requires attention, effort, and scholarship. Respondents agree or strongly agree that "students' opinions should be used in evaluating teaching efficiency" (70 percent), that "better methods of evaluating teaching are needed" (70 percent), and that "faculty should spend more time with students" (52 percent). On the other hand, the perceived characteristics of the students do not facilitate full accomplishment of the task. Only a small segment of the faculty strongly agree or agree that students are "adequately prepared in communication skills" (15 percent), "adequately prepared in mathematics" (19 percent), or "more studious than students of five years ago" (17 percent).

Current students are rated as "excellent" by 8 percent of the respondents, and as "good" by 45 percent. Faculty in the hard sciences, professors, and research-oriented faculty rate the quality of their students more favorably than do their colleagues. Faculty attitudes toward students, as reflected by our respondents, are inconclusive, fluctuating very much from issue to issue. However, given the accelerated growth and diversification of the student body with regard to intellectual, cultural, and socioeconomic characteristics during the last five years, it is quite surprising that there is no clear decline in faculty rating of students. Inconsistent attitudes on the part of Israeli faculty regarding teaching could be clarified to some extent by comparisons with other countries.[18] The Israelis rate their students more positively than do faculty in most other countries. They are in the middle in rank order in expressing agreement that "students' opinions should be used in evaluating teaching effectiveness." The rating of their training for teaching (74 percent reporting excellent or good) is moderate. Israeli faculty are less oriented to teaching than are most other faculty. Unlike some others, they do not think that "teaching effectiveness should be the primary criterion for promotion," and they strongly disagree that "the pressure to publish reduces the quality of teaching." The international comparisons suggest that Israeli faculty accept that "teaching is at the very core of academic activity," and as such, it should receive the utmost attention and resources. But where teaching interferes with research, the former should take a back seat.

Research Activity

Most Israeli students study in research universities, which also employ most Israeli senior faculty. This situation is probably not going to change in the near future since representatives of the universities control the CHE and have the authority to approve or reject new directions in higher education. Almost all respondents (97 percent) report that they are now engaged in research. However, only 24 percent report that they are solely in charge of research projects, and only 44 percent report that they are working independently on a research project. A very high percentage (91 percent) of the sample received some research funding within the previous three years (table 15.17). The average research grant was U.S.$25,000, which is close to the average annual faculty salary. The most common source of funding is government, followed by the institutions themselves, international organizations, and private foundations.

Institutions, private foundations, and the government provide 80 percent of the small grants, while the government, business, and international organizations grant the larger funds (70 percent). About 50 percent of the respondents feel that the availability of research funding has had a strong positive influence on their academic research; 40 percent cite the quality of research assistants, and 30 percent cite research facilities as a strong positive factor. Conversely, administrative work is considered by 42 percent to have a strong negative influence on research. Number of students, kinds of courses, advisory duties, and other activities are judged

Table 15.17

RESEARCH FUNDS BY SOURCES IN THE LAST THREE YEARS (PERCENTAGES)

	$24,999 OR LESS	$25,000 OR MORE	MARGINAL DISTRIBUTION
Institutions	69	31	22.84
Government	35	65	30.09
Business firms	12	88	9.47
Private foundations	50	50	14.51
International organizations	26	74	17.81
Others	50	50	5.28
Total	42	58	100.0
(N)	(191)	(264)	—

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

to be irrelevant. It is interesting to note that despite the importance of research, 67 percent state that they feel no pressure to carry out more research than they actually want to do.

Research Productivity

Research productivity may be measured in many ways.[19] The most common indicator of research productivity is scientific (refereed) publication of books and journal articles, but many other measures are in use. Item 41 of the questionnaire ("How many academic activities have you concluded in the last three years?") specifies ten possible products of academic activity (table 15.18).

The most common academic activities are publications (73 percent of the total sample) and presentations (67 percent) of refereed articles. In addition, 27 percent of the sample have authored a scientific book; 25 percent have edited a book, but only 6 percent have obtained a patent;

Table 15.18

RESEARCH PRODUCTIVITY IN THE LAST THREE YEARS AND NUMBER OF PRODUCTS PER RESPONDENT

	% REPORTING "AT LEAST 1 PRODUCT"	MEAN *N* OF PRODUCTS	STANDARD DEVIATION
Authored scientific books	27	1.1	0.9
Edited scientific books	25	1.4	1.9
Published scientific articles	73	7.1	6.7
Published research reports	38	3.5	3.9
Presented papers at a scientific conference	67	4.6	4.0
Wrote professional articles in newspaper	35	4.8	6.8
Obtained official patents	6	0.6	1.0
Produced computer programs for public use	4	0.6	1.4
Presented works of art	2	0.7	2.1
Produced videos or movies	2	0.3	1.4

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

4 percent have produced a computer program for public use; 2 percent have presented a work of art; and 2 percent have produced a video or a movie. The average number of books per author was 1.1 for the three-year period, and of scientific papers, 7.1. Academic productivity is influenced by many personal and environmental factors.[20] An indicator of productivity is number of books or articles published abroad. This correlates significantly with rank, with the research versus teaching continuum, with gender, and with field of study. Faculty in the hard sciences publish more articles but fewer books than do others. Interestingly enough, academic productivity is not correlated to job satisfaction.

The importance attached to publication by Israeli faculty is corroborated by international comparisons. A relatively small percentage of Israeli faculty (31 percent) agree that in their institution "publications used for promotion decisions are just 'counted,' not qualitatively evaluated." In contrast, academics in most of the participating countries agree more frequently with this derogatory statement, with colleagues in Russia at the top (61 percent), followed by Hong Kong (59 percent). Respondents agree that research and publication are required of all members of the Israeli academic profession. Research production is perceived to be the most important consideration for promotion. The problematic side of this state of affairs is the heated defense of the conservative position, that research is the only proper criterion for academic advancement. This position is supported by most of the faculty, and especially by those in senior positions: professors, faculty in the hard sciences, etc. Considering the dilemmas faced by higher education today, strict adherence to this concept of academic excellence may portend conflict in the future.

Service

There is no proper Hebrew translation of the English concept of academic service. *Services* usually imply less prestigious, marginal, and nonproductive tasks that are performed in order to facilitate the implementation of productive and important tasks. Very frequently, part-time administrative duties are performed in return for released time from teaching or for additional salary. Such activities are referred to as "service" to the institution or the department. Many so-called service activities outside the main workplace are defined by Israelis as "additional employment." A tenured professor who serves as a part-time special adviser to the prime minister would usually refer to this activity as an additional position or appointment, but rarely as a service.

Additional employment by the faculty is usually considered a necessity to augment low income, and not a social or an academic mission. We suspect that responses to the questions in this section are affected by the ambiguity of the concept in Hebrew, and by the low status that service activities often imply. A total of 69 percent of the respondents report engaging in at least one service activity. The amount of time devoted to service in Israel is similar to that in Germany, but greater than that in England.

The most common additional activities reported by the respondents are service to other educational institutions (41 percent) and working for national government bodies (25 percent), business or industry (17 percent), local government (12 percent), private social agencies (8 percent), international groups (11 percent), and international government bodies (4 percent). The ambiguous attitude of the Israeli faculty to service activities is reflected in the question, "For what percentage of time spent in service were you paid?" Only 38 percent responded; they report that they were paid for 50 percent of their time. Additional information about the attitudes of the faculty toward service is provided in table 15.19.

Governance

There is some variability in the governance of academic institutions in Israel. Most colleges are financed, supervised, and governed by the Ministry of Education or other ministries, and in most cases their chief administrators have permanent appointments. All universities, on the other hand, are administered by professors who are elected to office for short terms of three to five years. The chief executive officers (presidents) are chosen by the boards of governors and are in charge of the university budget and administrative bodies. The rectors are elected by the university senate, which is composed of all full professors and is in charge

Table 15.19

FACULTY OPINIONS ABOUT SERVICE

	PERCENTAGE AGREEING
Faculty have a professional obligation to apply their knowledge to social problems.	54
Service activity is a distraction. It competes with academic work.	17
From an economic standpoint, paid consulting work is necessary.	24
Service is important in faculty evaluation.	22

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

Note: N = 502

of academic affairs. Their main responsibilities are recruiting, appointing, and promoting personnel. Israel is unique in the separation between financial and personnel authority (under the president) and academic governance (under the rector). Major decisions that include academic and financial components are made jointly.

A large proportion of respondents (68 percent) perceive themselves to be fairly or very influential in affecting policy at the level of the department; 28 percent feel they influence policy at the faculty level. However, only 11 percent feel they have fair or considerable influence at the institutional level. A relatively high degree of alienation between the faculty and the administration is indicated by the high percentage (55 percent) who agree with the statement that "the administration is often autocratic" and that "communication between the faculty and the administration is poor" (37 percent). Alienation of the faculty from the administration does not affect their positive perception of academic freedom. Relatively few (30 percent) maintain that there is too much government intervention. Eighty-eight percent of the respondents agree that they are free to choose any topic for research; approximately 82 percent feel free to choose course content (table 15.20).

Table 15.20

RESPONDENTS' PERCEPTIONS OF ACADEMIC FREEDOM IN TEACHING AND RESEARCH (PERCENTAGES)

	FREEDOM TO DETERMINE COURSE CONTENT	FREEDOM TO DECIDE RESEARCH TOPIC
Completely agree	50	80
Agree	34	14
Disagree	12	5
Completely disagree	5	1
(N)	(469)	(449)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

In summary, we note that a strong sense of academic freedom, independence from governmental or administrative intervention, and involvement in departmental policymaking are coupled with a certain amount of alienation between administration and faculty and some sense of being unable to influence institutional policy.

International Dimensions of Academic Life

Involvement in international academic activity is highly valued by faculty and by official governmental authorities. Israel is a small country, remote from the international centers of research and teaching; its language is spoken by very few beyond its borders. Generous sabbatical allotments and travel funds are part of the policy to encourage participation in international activities and ensure high academic standards. More than half of the sample of 502 persons (63 percent) report that they have published articles and books in other countries; the mean number of publications per respondent was 8.3. In the previous three years, 76 percent of the sample participated in academic conferences outside Israel. In addition, 73 percent are members of scientific societies outside Israel.

Some 43 percent of the respondents received their highest academic degree abroad. About 55 percent of the sample report traveling abroad to study or to do research. They spent, on the average, 5.4 months abroad during the previous ten years. Twenty percent have served as faculty members in foreign institutions. Twenty-eight percent spent a sabbatical year abroad in the previous three years and 44 percent in the previous ten years. However, we note that in spite of the generous travel arrangements, a large segment of the faculty does not go abroad.

There is general agreement among Israeli scholars about the importance of international collaboration (table 15.21). Practically everyone agrees that in order to keep up with the discipline, one must read international publications (99 percent) and maintain connections with scholars in other countries (92 percent). However, only 35 percent of the faculty agree that the curriculum should be more international in focus. A majority of the respondents rate only two global issues mentioned in the questionnaire as warranting highest governmental priority.

The findings indicate that Israeli faculty view ideological and intellectual issues (education, human rights, and religion) as much more important and urgent than material ones such as food supply or the world economy. There are almost no major differences between college and university faculty on these issues (table 15.22). The Israeli academic profession seems to stand out, compared with faculty in other countries, in its involvement in international academic activities. Official government and university policies are partially responsible for this state of affairs. According to these policies, international visibility, acquired through publication, attendance at professional meetings abroad, international research collaboration, and teaching abroad are rewarded both at the departmental and the institutional level. Teaching abroad may also serve to supplement low Israeli academic salaries. However, international concerns are not interpreted as exerting influence on students, curriculum, or global policy.

Higher Education and Society

The status and role of the academic profession in Israel seem to be full of inconsistencies. Public opinion surveys tend to place many academic

Table 15.21

ATTITUDES TOWARD INTERNATIONAL CONNECTIONS IN HIGHER EDUCATION, BY TYPE OF INSTITUTION (PERCENTAGES)

	COLLEGES (N = 101)		UNIVERSITIES (N = 349)		
	STRONGLY AGREE	OTHER	STRONGLY AGREE	OTHER	$P<$
Connections with scholars in other countries are very important.	52	48	77	23	0.001
To keep up with developments, one must read books and journals published abroad.	88	12	97	3	0.050
Student and faculty mobility should be promoted from one country to another.	38	62	69	31	0.000
The curriculum in this institution should be more international in focus.	10	90	13	87	0.200

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

Table 15.22

RESPONDENTS ASSIGNING TOP PRIORITY TO GLOBAL ISSUES, BY TYPE OF INSTITUTION (PERCENTAGES)

	UNIVERSITIES	COLLEGES	TOTAL
Basic education	61	74	64[a]
Human rights	50	49	49
Ethnic and religious conflicts	40	46	42
Arms control	36	43	38
Environmental quality	36	39	37
AIDS and other health issues	21	21	21
Population growth	16	18	16
World food supply	10	15	11[a]
World economy	10	7	9
(*N*)	(365)	(117)	(482)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

[a] $P<0.05$

professions at the top of the occupational prestige scales.[21] Joseph Ben-David points out that academic activity in Israel retains some of the sacred attitudes of Jewish tradition, which considered learning a daily duty rather than a means of personal advancement.[22] Intellectual achievement is regarded as a self-satisfying activity and as a self-evident contribution to the public good. In contrast with the presumed high prestige of the academic profession by the public, its socioeconomic condition is deteriorating.

Compared with administrative, professional, and business occupations, academic salaries have deteriorated considerably since the late 1970s. In a sarcastic description of Israeli faculty, the famous poet and professor of comparative literature Nathan Zach argued in 1993 that the academic profession declared a strike because "the salaries of the professors did not depreciate by 40 percent, but by 100 percent. . . ." He further maintained that "a shortage of positions prevents injection of new blood into a blocked up system. The brain drain would increase significantly if it weren't for the crisis in the United States, which rules out a popular destination. Salaries have plummeted. A lecturer holding a doctorate, father of two children, whose wife does not work outside the home, has turned into a welfare case."[23] Even if Zach's descriptions are exaggerated, they reflect the complicated situation of the Israeli academic profession and its dissatisfied self-perception.

In spite of depreciated incomes and declining public appreciation, faculty still assume that education in general, and higher education in particular, should be the cornerstone of society. The respondents' ambiguous opinions about the equality of educational opportunity in Israel is indicated by two contrasting findings. Respondents estimate the mean percentage of young people capable of graduating from secondary school to be 73 percent (standard deviation = 17.2) and maintain that 61 percent of them should be accepted for higher education. Both estimates are significantly different from the educational reality in Israel. According to official statistics, about 83 percent of a cohort graduates from secondary schools—more than is estimated—and 44 percent of them complete the matriculation examinations, which makes them eligible for higher education.[24] But only 37 percent of secondary school graduates (much less than faculty estimate) are admitted to the first year in academic programs.

The respondents seem to underestimate the proportions of secondary school graduates and to exaggerate the percentages of students who are admitted to higher education. However, we should remember that they were asked their opinion about "how many should be admitted to higher education" and not to estimate how many are now admitted. We might interpret the faculty estimates as an appeal for easier access and greater democratization of higher education.

Practically all Israeli faculty agree that higher education should do what it is normatively expected to do (table 15.23). Faculty rank promoting science, strengthening the nation by research and development, and protecting intellectual freedom as top priorities. Research-oriented

Table 15.23

RESPONDENTS ASSIGNING TOP PRIORITY TO ISSUES ABOUT HIGHER EDUCATION, BY RESEARCH/TEACHING PREFERENCE (PERCENTAGES)

	TEACHING-ORIENTED	RESEARCH-ORIENTED	TOTAL
Promoting scholarship and research	67	77	73[a]
Strengthening the nation's ability to compete internationally	46	61	55[a]
Protecting intellectual freedom	49	59	55[a]
Solving basic social problems	54	46	49[a]
Preparing students for work	46	35	39
Preserving cultural heritage	37	28	32[a]
Education of adults	31	28	29
Educating students for leadership	20	15	17
(N)	(179)	(290)	(469)

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

[a] *P*<.05

faculty emphasize strengthening the nation by research and development, while teaching-oriented faculty emphasize the high priority of social issues. Once again, as in ranking the order of importance of global issues, scientific and intellectual issues get high priority, while solving social issues or adult education get low priority. Only 12 percent of the Israeli respondents agree or strongly agree that "academics are among the most influential opinion leaders." Only English academics are less in agreement than the Israelis with this statement.

In contrast, Israeli faculty declare more frequently than any other participating faculty that "academic freedom is strongly protected in this country."[25] It seems that the strong international orientation and the strong emphasis on research per se tend to reinforce among the faculty a sense of both intellectual and scientific freedom, strong attachment to the international academic community, and a sense of social alienation from their local environment and its problems.

In Search of a Latent Structure

In an effort to summarize the findings, we sought a unifying idea that might characterize the unique combination of the main dimensions in the lives of Israeli faculty. The statistical procedure used for this purpose was factor analysis. A review of the findings suggests a list of eighteen variables, selected from the eight sections of the questionnaire, which have substantial explanatory power and are interrelated (table 15.24). Factor analysis of the eighteen variables provides five different and meaningful dimensions that can be identified by their loadings. Together, these five factors explain 48 percent of the total variance of the eighteen measured variables. The first factor, labeled "research orientations," deals with the teaching/research continuum, international publications, and participation in conferences, and is also associated with natural science department affiliation, rank, and gender. The second most meaningful factor, labeled "resources," deals with faculty rating of salary and other resources, research resources, and salary as a consideration when deciding whether to leave or stay at an institution. A third factor, labeled "job satisfaction," is associated with rank, position, rating of students, and

Table 15.24

FACTORS STRUCTURE: ITEM LOADINGS, AND VARIANCE EXPLAINED BY FACTORS

	RESEARCH ORIENTATION	RESOURCES	JOB SATISFACTION	WORKPLACE	IDEOLOGY
International publications	0.71	-0.07	0.02	0.15	0.08
Papers presented	0.64	-0.18	-0.15	0.05	0.17
Teaching vs. research	0.63	0.29	0.01	-0.01	-0.06
Department	-0.65	-0.32	0.08	0.07	0.23
Rating of salary	0.14	0.76	-0.02	0.02	-0.02
Service importance	-0.11	0.48	-0.02	0.13	0.28
Research resources/decision to leave or stay	-0.10	-0.45	-0.25	0.23	-0.03
Salary level/decision to leave or stay	-0.04	-0.72	0.01	0.24	0.01
Influence on faculty	0.11	-0.07	0.64	-0.21	0.05
Institutional commitment	-0.16	0.01	0.58	0.10	-0.12
Rank	-0.38	-0.20	0.49	0.05	0.16
Job satisfaction	-0.03	0.33	0.55	-0.54	0.07
Rating of students	0.22	0.04	0.35	0.10	-0.09
Institute reputation/decision to leave or stay	-0.01	-0.08	-0.09	0.78	-0.03
Institutional size	0.36	0.14	-0.09	0.50	-0.11
Academics are influential	0.20	0.20	-0.00	-0.16	0.68
Protecting academic freedom	-0.07	0.07	-0.15	-0.40	-0.56
Sex	0.43	0.24	0.06	0.08	-0.59
Percentage of total variance explained by factors	14.0	11.2	8.3	7.5	6.9

SOURCE: The Carnegie Foundation for the Advancement of Teaching. The International Survey of the Academic Profession, 1991–1993, Princeton, NJ (survey of Israel).

commitment to the institution. The fourth factor, labeled "workplace," deals with type of institution, college or university, and institutional reputation as motivations for staying at the same institution. The last factor, labeled "ideology," is associated with gender, the influence of academics on society, and protecting academic freedom.

The factor analysis suggests a partial departmentalization of five different spheres of academic life: (1) a focus on research versus teaching; (2) financial resources; (3) rank and job satisfaction; (4) institutional setting; and (5) academic ideology. It also supports the main finding of this survey—namely, that research orientation versus teaching is the latent unifying dimension of the Israeli professoriate.

CONCLUSION

The tradition of research integrated with teaching still dominates the Israeli academic profession. Only 11 percent of our sample (most of whom work in colleges and professional departments) report that their main interest is solely in teaching. Another 27 percent report leaning toward teaching. The chief interest of most faculty (62 percent) is in research. While approximately 53 percent of the respondents' time is devoted to activities other than research, they repeatedly emphasize that research and publication are the most important challenges that they face as members of the Israeli academic profession.

Paucity of resources to ensure adequate academic salaries and research funds can be associated with declining interest in research on the part of many talented young scholars. Diminishing numbers of openings for new recruits, deteriorating social status, and growing job dissatisfaction all lead to the conclusion that higher education is on the verge of a major transformation. The question is, will teacher-researchers accept the challenge posed by this transformation? Will academics assume a leadership role in shaping the inevitable changes and take responsibility for the sociological and educational developments required by the democratization of higher education in Israel, or will they dig in to defend old trenches, leaving the field open to other contenders? These alternatives represent two very different scenarios for the future. One is an inclusive and socially integrated scenario in which the academic profession fulfills a pioneering leadership role. The other scenario is exclusive and aristocratic, in which the profession considers itself to be part of the international community, alienated from its social roots.

The continued strong attachment of the Israeli academic profession to the traditional union of research and teaching and the predominance of research over teaching may be interpreted and conceptualized in the following way: Israel is a small country, fraught with internal conflicts and constantly under siege. Poor in natural resources, with a very diversified population, it must rely on its intellectual and scientific resources in order to cope with high-risk challenges. Israel's success in defending itself in an antagonistic environment, in developing a dynamic economy, in preserving a democratic way of life, in resolving the many internal social conflicts, and in developing a complex system of education has depended to a very great extent on its academics. It would seem reasonable to encourage them to pursue their traditional goals, and to continue to govern their own financial, administrative, and academic affairs, as in the past.

Another picture of the Israeli academy characterizes it as an exclusive, alienated, internationally oriented elite, consisting mainly of males of European origin and of high-prestige and relatively affluent socioeconomic background. Waving the banner of scientific research standards as ideological camouflage, they impose upon prospective candidates many demanding requirements, high international standards (publications in a foreign language), a very long period of training, and insecure terms of early employment. By means of a very strict selection policy, the academic profession is able to preserve its social composition, transnational networks and loyalties, job security, generous sabbatical and research funds, and many other advantages.

There is, however, some risk in such a policy of social exclusiveness. More and more indicators suggest growing tension between the socially homogeneous academic profession and the extremely diversified population. For example, the Israeli academic profession views itself as least influential in public affairs compared with academics in all other countries. Recent efforts to incorporate into the academic system new institutions, new curricula, new degrees, and new types of faculty have, as yet, made few inroads in the social composition, work situation, tradition of administrative self-regulation, professional activity, and conservative ideology of the academic profession. The observation of Joseph Ben-David, that the new academic institutions and professionals follow their predecessors very closely, seems to be as valid at present as it was in the past.[26]

APPENDICES

APPENDIX A

THE INTERNATIONAL STUDY OF THE ACADEMIC PROFESSION, 1991–1993, METHODOLOGICAL NOTES

Mary Jean Whitelaw

Rationale

The Carnegie Foundation for the Advancement of Teaching initiated an international study of college and university faculty as a crucial part of its expanding international program. The Foundation was convinced that in today's interconnected world, an international perspective is essential in understanding how academic life functions and how it might be strengthened both at home and abroad. The immediate purpose of this survey was to obtain, analyze, and compare information concerning the attitudes, values, and work patterns of the professoriate in various countries. The larger goal was to lay the groundwork for further collaboration on issues in higher education.

Fifteen nations collaborated in "The International Study of the Academic Profession, 1991–1993": Australia, Brazil, Chile, Egypt,[1] England,[2] [West] Germany, Hong Kong, Israel, Japan, [South] Korea, Mexico, the Netherlands, Russia, Sweden, and the United States. The countries selected have relatively well-developed systems of higher education and represent geographically diverse regions.

To facilitate this survey, selected scholars in the field of comparative international higher education were designated as research directors in each participating country. Specifically, the research directors were involved in all aspects of the project including preparing the questionnaire for distribution, sampling and administration of the study in their own country, sending completed questionnaires to The Carnegie Foundation, analyzing their own results, and writing an essay on their own country. In addition, the research directors participated in two international meetings. This study would never have been possible without the outstanding cooperation and contribution of our team of research directors.

---

[1] Egypt did not provide full data, nor prepare a final essay, and therefore is not included in this book.

[2] For mainly technical reasons, the survey covered England only, rather than the United Kingdom as a whole.

The Questionnaire

The core of this study was the administration of a questionnaire to faculty at four-year colleges and universities (or their equivalent). The questionnaire was based upon earlier surveys created by The Carnegie Foundation for use in national studies of faculty in the United States. However, the survey instrument was reworked and enhanced by the team of research directors and the staff of The Carnegie Foundation in order to take the international dimensions of the project into account.

The process of developing a questionnaire suitable for international distribution was not an easy one. The goal in the development of the questionnaire was to have each item unambiguous in focus and expressed in straightforward language. The standard answer-sets had to be similarly straightforward. The ultimate objective was to develop a survey instrument that would include well-designed questions that were universally applicable and would address the goals of the project.

Differences in the structure and function of higher education in the various countries made the wording and selection of issues a delicate task. In addition, differences in the context and climate of professional life had to be taken into account. For example, in some countries college teaching is sometimes a "second" job; in some countries faculty may be reluctant to answer questions that are subject to a political interpretation; and in some countries faculty will complete a questionnaire only if it comes through personal contacts.

The survey instrument went through several stages of development. Consequently, drafting and revising the document took several months.

The research directors reviewed draft questionnaires and every effort was made to incorporate the changes and suggestions that they provided. The final survey instrument reflected The Carnegie Foundation's interests in academic career patterns, general working conditions, professional activities, attitudes toward teaching and research, university governance, international dimensions of academic life, and a wide range of social and educational issues, as well as demographic considerations. In all, the questionnaire included more than 250 questions and took about one hour to complete.

At the end of the survey instrument, respondents were invited to write in additional comments. These comments ranged from remarks about the questionnaire itself to insightful ideas on a wide variety of issues in higher education. When necessary, the comments were translated into English by individuals involved in higher education who were proficient in both English and the respondent's language. These comments were often very useful in enhancing our understanding of country-specific circumstances.

Research directors were invited to add a few questions to the standard international set for use in their own country. In addition, questions could be omitted by the research director if they were inappropriate due to the culture of the country or the construct of higher education. Therefore, the analysis of some items may exclude a few countries. Some country questionnaires maintain the numbering and sequence of questions listed on the master international survey instrument. In other countries, the research directors determined that it was necessary to reconfigure the questionnaire.

In January 1992, a final version of the questionnaire was agreed upon. Thereafter, questionnaires were sent into the field at times appropriate to the academic calendar in each country.

Backtranslation

Meaningful cross-national comparisons are always difficult and complex because of differences in language, culture, and institutional structures. When a survey questionnaire is to serve as the information basis for comparison, the items used must be the "same" in every country; they need to be as comparable as it is possible to make them, given the above-mentioned variations.

In most countries, the standard version of the questionnaire in English had to be translated appropriately for in-country use. In translation, the objective was to have the translated form of each item mirror, to the fullest extent possible, the intent of the item as it appeared in English.

Each country's questionnaire was sent to The Carnegie Foundation for backtranslation to standard U.S. English and comparison to the initial version. Scholars who were experts in both language and higher education translated the survey instruments into English. They suggested alternative wording and the underlying rationale, if necessary. The comments of the backtranslators were sent to the research directors. After careful consideration of the recommendations, the research directors made final decisions on appropriate changes and then proceeded with the printing and distribution of the questionnaire.

Pretesting

Pilot tests of the translated questionnaire were conducted in each country using a minimum of ten academic respondents. Only minor ("cosmetic") revisions were made as a result of the pretesting results.

Sample Design

The overall objective of this project was to describe the current status of the academic profession as it can be discerned through the use of a survey questionnaire administered to faculty in higher education institutions. The research directors in each country worked with The Carnegie Foundation to develop the survey methodology.

A summary of sampling procedures was prepared by The Carnegie Foundation so that the sampling methodology would be as consistent as possible from one country to the next. A two-stage stratified random sample was employed. In the first stage institutions were selected, and in the second stage faculty members were selected. The number of such institutions and of the total faculty employed in them varies significantly across the fifteen participating countries. In an effort to standardize the sampling procedures the following guidelines were agreed upon.

In the first stage, all public and private institutions of higher education that award a baccalaureate degree (or its equivalent) or higher were included in the universe from which the sample was drawn. Institutions were separated into two categories, when possible. The "first tier" of institutions included major research universities; the "second tier" included all remaining institutions in the universe. Institutions were randomly selected from each of the two categories using a standardized process.

Some countries elected to sample additional groups of institutions. For example, the Netherlands administered questionnaires to the Dutch *HBO* institutions (which are comparable to the former British polytechnics and the German *Fachhochschulen*) in addition to the Dutch universities. In the United States, questionnaires were administered to faculty at all types of institutions of higher learning including research and doctoral universities, master's level institutions, baccalaureate colleges, and community, junior, and technical colleges. These additional groups of institutions were not included in international comparative analyses.

In the second stage, academics were randomly selected from lists of faculty at each of the institutions in the sample. The universe from which the sample was drawn included all academics who have a significant commitment to an academic career. Individuals could be full or part time or could have research, administrative, or other nonteaching roles as part of their career responsibilities. The specific choices concerning academic ranks to be selected, full-time or part-time status, and other variables were to be made by the research directors in the context of the broad commitment indicated above. Most countries planned to select enough faculty members so that they would obtain a minimum of one thousand usable responses.

Survey Administration

In almost all countries, questionnaires were mailed directly to each academic in the sample. In a few countries, the survey instruments were personally delivered by responsible individuals at each institution in the sample.

A total of 19,472 faculty returned usable questionnaires. The number of respondents ranged from 436 in Russia to 3,529 in the United States. Hong Kong and Israel had 461 and 502 respondents, respectively; this is not surprising given the relatively small population of these nations. Response rates varied from a high of 97 percent in Brazil to a low of 15 percent in Russia. Given local circumstances and the nature of the questionnaire, each research director felt the response rate in his or her own country was appropriate. Detailed data on response rates for each participating country are presented in table A.1.

When the questionnaires were returned, the research directors were responsible for handling the "clean up" and coding on a few designated items (discipline and country of highest degree, for example). The research directors were also asked to be certain all numbers were legible. With the exception of Egypt, copies of the questionnaires were made in each country and the originals were shipped to The Carnegie Foundation in Princeton, New Jersey.

While the administration and data collection were conducted within each country, final processing of the questionnaires and data entry were completed in the United States from early 1992 to mid-1993. In Princeton, Carnegie staff reviewed each questionnaire to be certain they were "clean" and "coded." The questionnaires were then sent to Data Entry & Informational Services, Inc. (DEIS) in Englewood, Colorado, where they were keypunched, based upon a column guide supplied by The Carnegie Foundation.

When the data were returned from DEIS on computer diskette, fifty questionnaires from each country were randomly chosen and the precision of the data entry on diskette was evaluated by comparing the data on diskette to the original questionnaires.

In addition, as soon as the data were returned on diskette, they were reviewed for obvious errors. Marginals were generated by using SPSS/PC+ programs and these frequencies were reviewed. Outliers and obvious errors were reviewed and decisions on how to resolve anomalies were made by Carnegie staff in consultation with the appropriate research director.

Once a determination was made that the level of accuracy was acceptable, the raw data were mailed to the appropriate research director. A copy of the SPSS/PC+ programs developed at The Carnegie Foundation and the marginals were also forwarded to each research director.

International Meetings

Two meetings of the international team were convened in Princeton, New Jersey. The first meeting occurred June 17–19, 1991. The primary topic under discussion was the content and design of the survey instrument. In addition, guidelines for sampling, time schedules, and plans for publication were considered. Lively discussions contributed to greater understanding of the many issues that complicate comparative study in higher education.

The second meeting took place on April 7–9, 1993. This meeting was dominated by reports presented by each of the country directors describing their methods and findings. At the same time, the group delineated a set of useful cross-national themes regarding the condition of the professoriate.

Financing

The Carnegie Foundation was fully committed to the success of this multination study of the academic profession. As the leader in this collaborative effort, The Foundation made funds available to cover the costs of the two conferences of research directors, including their accommodation and transportation, as well as data entry, processing, and the publication of two related books.

The cost of conducting the faculty survey varied from country to country. The Carnegie Foundation provided additional funding to most countries to support the administration and research. Additional funding from government and other agencies was also secured in most of the participating nations.

Distribution

Several publications will emerge from this study. *The Academic Profession: An International Perspective* was released on June 20, 1994, and published in November 1994. This report brings comparative data from the survey to bear on critical issues in higher education around the world. It includes a brief overview of the study, a summary of several themes that are addressed within the framework of the questionnaire, seventy bar charts, and sixty-eight tables that depict some of the most interesting results from the survey. While this report reviews some of the most interesting findings of the project and suggests some important policy questions sparked by this study, it represents only the tip of the iceberg. There are more than 250 items included in the survey instrument, and we received 19,472 usable responses; a great deal of detailed information on a wide range of topics remains to be investigated.

This book is the second major publication outcome. The collection of essays, written by the country directors, reports on and interprets the results from each of the participating nations. This book is the first volume ever published that presents comparative data and analysis based on a common survey and compatible research designs concerning the academic profession. As such, it is a benchmark for future research. It also permits policymakers as well as researchers to obtain insights into the state of the academic profession in many countries.

In addition to these two publications, many participants in the project will prepare additional publications of various kinds, ranging from case studies to comparative and regional studies. Decisions about the nature and scope of these projects will, of course, be made by each author.

Conclusion

Country-specific methodological problems and issues are described within the essays written by the research directors. Each research director is also preparing a summary of the technical notes relevant to the study in his or her own country, and these will be compiled by The Carnegie Foundation.

Many factors must be kept in mind when interpreting the data collected in these surveys. It is important, for instance, to be familiar with the sampling methodology used in each country. In some instances, the date of questionnaire administration may affect the responses of faculty. In other cases, the questionnaire "culture" must be considered. While every effort was made to enforce similar sampling procedures, cultural variation and country-specific techniques result in some methodological differences among countries.

Table A.1

RESPONSE RATES BY COUNTRY IN THE INTERNATIONAL SURVEY OF THE ACADEMIC PROFESSION, 1991–1993

	NUMBER OF QUESTIONNAIRES MAILED	NUMBER OF USABLE RESPONSES	RESPONSE RATE (%)
Australia	3,605	1,420	39.4
Brazil	1,012	984	97.2
Chile	1,859	1,071	57.6
England	3,600	1,948	54.1
Germany	10,184	2,801	27.5
Hong Kong	1,247	461	37.0
Israel	2,225	502	22.6
Japan	4,000	1,889	47.2
Korea	3,274	903	27.6
Mexico	1,200	1,027	85.6
Netherlands	2,661	1,364	51.2
Russia	3,000	436	14.5
Sweden	2,500	1,122	44.9
Unites States	7,588	3,529	46.5

SOURCE: The Carnegie Foundation for the Advancement of Teaching, The International Survey of the Academic Profession, 1991–1993, Princeton, NJ.

APPENDIX B

MEMBERS OF THE RESEARCH TEAM

AUSTRALIA

Prof. Barry A. Sheehan, University of Melbourne

Dr. Anthony R. Welch, Faculty of Education, University of Sydney

BRAZIL

Prof. Simon Schwartzman, Research Center on Higher Education, University of São Paulo

Dr. Elizabeth Balbachevsky, Research Center on Higher Education, University of São Paulo

CHILE

Dr. Ernesto Schiefelbein, UNESCO-OREALC, Santiago, and former minister of education, Republic of Chile

ENGLAND

Prof. Oliver Fulton, Department of Educational Research, University of Lancaster

GERMANY

Prof. Dr. Ulrich Teichler, Center for Research on Higher Education and Work, Comprehensive University of Kassel

Dr. Jürgen Enders, Center for Reasearch on Higher Education and Work, Comprehensive University of Kassel

HONG KONG

Dr. Gerard A. Postiglione, Department of Education, University of Hong Kong

ISRAEL

Prof. Michael Chen, School of Education, University of Tel Aviv

Dr. Esther E. Gottlieb, State Teachers College—Seminar Hakibbutzim, Tel Aviv

Dr. Ruth Yakir, State Teachers College—Seminar Hakibbutzim, Tel Aviv

JAPAN

Prof. Akira Arimoto, Research Institute for Higher Education, Hiroshima University

KOREA

Prof. Sungho H. Lee, School of Education, Yonsei University, Seoul, and former assistant minister for higher education, Republic of Korea

MEXICO

Prof. Manuel Gil Antón, Department of Sociology, Universidad Autónoma Metropolitana, Unidad Azcapotzalco, Mexico City

NETHERLANDS

Prof. Peter A. M. Maassen, Center for Higher Education Policy Studies, University of Twente, Enschede

Prof. Frans A. van Vught, Center for Higher Education Policy Studies, University of Twente, Enschede

RUSSIA

Prof. Alexander Savelyev, Research Institute on Higher Education, Moscow

SWEDEN

Prof. Torsten Nybom, Council for Studies on Higher Education, Stockholm

Dr. Karsten Lundeqvist, Council for Studies on Higher Education, Stockholm

UNITED STATES

Dr. J. Eugene Haas, The Carnegie Foundation for the Advancement of Teaching

CONSULTANTS

Prof. Philip G. Altbach, School of Education, Boston College, and senior associate, The Carnegie Foundation for the Advancement of Teaching

Prof. Lionel S. Lewis, State University of New York at Buffalo

APPENDIX C

International Survey of the Academic Profession

INTERNATIONAL SURVEY OF THE ACADEMIC PROFESSION

PLEASE READ EACH QUESTION CAREFULLY AND PROVIDE THE RESPONSE THAT BEST REPRESENTS YOUR ANSWER. FOR MOST QUESTIONS YOU NEED ONLY CIRCLE A SINGLE NUMBER, OTHERS REQUEST THAT YOU CIRCLE ALL THAT APPLY, WHILE ON SOME YOU ARE ASKED TO WRITE IN YOUR ANSWER.

IF YOU ARE AFFILIATED WITH MORE THAN ONE INSTITUTION OF HIGHER EDUCATION, PLEASE ANSWER THE QUESTIONS WITH A FOCUS ON THE COLLEGE OR UNIVERSITY WHERE YOU RECEIVED THIS QUESTIONNAIRE.

YOUR RESPONSES TO THESE QUESTIONS WILL BE KEPT CONFIDENTIAL. INDIVIDUALS AND THEIR INSTITUTIONS WILL NOT BE IDENTIFIED IN REPORTS AND PUBLICATIONS.

PERSONAL INVENTORY

In this section we are seeking information about you and your personal background.

1. What is your gender?
   1 Female
   2 Male

2. In what year were you born? __________

Now we would like to find out about your educational background and experience in higher education.

3. a) What is your highest earned degree? ______________

   b) In which discipline was your highest degree awarded? ______________

   c) In what country was your highest degree awarded? ______________

   d) Are you now working toward an advanced degree? 1 Yes 2 No

4a. How would you assess the quality of the training you received for your role as teacher?

1 Excellent
2 Good
3 Fair
4 Poor
5 Not Applicable

4b. How would you assess the quality of the training you received for your role as researcher?

1 Excellent
2 Good
3 Fair
4 Poor
5 Not Applicable

5. At how many different institutions of higher education have you ever held a regular academic appointment? __________

6. How many years have you been employed in higher education? (Include current year.) __________

7. How many years, in total, have you been employed in professional work *outside* higher education? __________

Moving to your professional work, we would like to know more about your current academic appointment and the responsibilities you have.

8. What is the approximate student enrollment at the institution where you received this questionnaire?

1 Less than 1,500
2 1,500 to 2,499
3 2,500 to 4,999
4 5,000 to 9,999
5 10,000 to 29,999
6 30,000 or more

9. What is your current academic rank at this institution?

____

10. In which discipline would you classify the department or unit in which you are employed?

____

11. What are the characteristics of your current employment at this institution?

a) Working time
1 Full-time
2 Part-time

b) Nature of employment (Circle only one)
1 Tenured
2 Indefinite contract without full tenure
3 Contract for fixed period
4 Other contract (please specify)
____

12. How many years have you been employed at this institution? (Include current year.) ________

13. We would like to know the size of your basic working unit within this institution. How many professional staff (including yourself) work in your department or the smallest working unit to which you belong? ________

14. Do you currently hold other paid positions *outside this institution*?

	Yes Full-time	Yes Part-time	No
a) Academic	1	2	3
b) Nonacademic	1	2	3

Please answer the following questions about your membership and participation in professional organizations.

15a. To how many (name of country) disciplinary/scientific societies do you belong? ________

15b. To how many international disciplinary/scientific societies do you belong? ________

16a. During the past *three years*, how many disciplinary/scientific conferences did you attend in (name of country)? ________

16b. During the past *three years*, how many disciplinary/scientific conferences did you attend outside (name of country)? ________

17. Most faculty members have a variety of commitments to the institution as well as to the academic profession in general. Please indicate the degree to which each of the following affiliations is *important* to you.

	Very Important	Fairly Important	Not Too Important	Not at All Important
a) My academic discipline	1	2	3	4
b) This institution	1	2	3	4
c) My department in this institution	1	2	3	4

One of the unique qualities of the academic profession is the working environment at institutions of higher education. The following questions concern time commitments, salary, and general conditions affecting the academic climate.

18. First, please consider all your professional work, wherever carried out. In a typical week, how many hours do you spend on each of the following activities?

	Hours per week when classes are in session	Hours per week when classes are NOT in session
Teaching (preparation, classroom instruction, advising students, reading and evaluating student work)	________	________
Research (reading literature, writing, conducting experiments, fieldwork)	________	________
Service (services to clients and/or patients, paid or unpaid consulting, public or voluntary service)	________	________
Administration (committees, department meetings, paperwork)	________	________
Other academic activities (attending conferences, professional activities not clearly attributable to any of the categories above	________	________

19. What is your total earned income for the current year?

1 Below $5,000
2 $5,000 to $9,999
3 $10,000 to $24,999
4 $25,000 to $39,999
5 $40,000 to $54,999
6 $55,000 to $69,999
7 $70,000 to $84,999
8 $85,000 or more

20. Of your total earned income, what percentage comes from the following sources? (Figures should add to 100 percent.)

a) This academic institution __________%

b) Other academic endeavors __________%

c) Nonacademic work __________%

21a. How would you rate your own academic salary?

1 Excellent
2 Good
3 Fair
4 Poor
5 Don't know

21b. How would you rate the prospects of improvement in your academic salary in the coming five years?

1 Excellent	4 Poor
2 Good	5 Don't know
3 Fair	

22. How would you rate the following benefits available to you at this institution?

		Excellent	Good	Fair	Poor	Not Available
a)	Retirement arrangements	1	2	3	4	5
b)	Paid sabbatical leaves	1	2	3	4	5
c)	Travel funds for academics	1	2	3	4	5
d)	Other fringe benefits (e.g., medical insurance, life insurance, housing, education)	1	2	3	4	5

23. Based on your experience at this institution, how would you assess the following conditions affecting your academic life?

		Excellent	Good	Fair	Poor	Not Available
a)	The intellectual atmosphere	1	2	3	4	5
b)	Relationships between faculty and administration	1	2	3	4	5
c)	Faculty morale	1	2	3	4	5
d)	Clarity of the institutional mission	1	2	3	4	5
e)	The sense of community	1	2	3	4	5

24. At this institution, how would you evaluate the following facilities, resources, or personnel you need to support your work?

		Excellent	Good	Fair	Poor	Not Available
a)	Classrooms	1	2	3	4	5
b)	Technology for teaching	1	2	3	4	5
c)	Laboratories	1	2	3	4	5
d)	Research equipment and instruments	1	2	3	4	5
e)	Computer facilities	1	2	3	4	5
f)	Library holdings	1	2	3	4	5
g)	Faculty offices	1	2	3	4	5
h)	Secretarial support	1	2	3	4	5

25. How would you rate the quality of the students currently enrolled in your department?

1 Excellent
2 Good
3 Fair
4 Poor
5 Don't know

26. On average, how would you compare the quality of students currently enrolled in your department with the quality of the students enrolled five years ago?

Better Now		About the Same		Better Five Years Ago	Don't Know
1	2	3	4	5	6

27. To what extent are you satisfied with the following aspects of your job?

		Very Satisfied		Neutral		Very Dissatisfied	Not Applicable
a)	The courses you teach	1	2	3	4	5	6
b)	Relationships with colleagues	1	2	3	4	5	6
c)	Your job security	1	2	3	4	5	6
d)	Your prospects for promotion	1	2	3	4	5	6
e)	The opportunity to pursue your own ideas	1	2	3	4	5	6
f)	The way this institution is managed	1	2	3	4	5	6
g)	Your job situation as a whole	1	2	3	4	5	6

28. Turning to your discipline and to your own career, we would like your opinion on each of the following statements.

		Agree		Neutral		Disagree	Not Applicable
a)	This is an especially creative and productive time in my field.	1	2	3	4	5	6
b)	This is a poor time for any young person to begin an academic career in my field.	1	2	3	4	5	6
c)	If I had it to do over again, I would not become an academic.	1	2	3	4	5	6
d)	My job is a source of considerable personal strain.	1	2	3	4	5	6

29. How likely is it that you will leave this institution in the next five years?

Very Likely		Neutral		Very Unlikely	Don't Know
1	2	3	4	5	6

30. In thinking about leaving or staying at this institution, how important are the following considerations?

		Strong Reason to Leave				Strong Reason to Stay	Not Applicable
a)	Income	1	2	3	4	5	6
b)	Resources for research	1	2	3	4	5	6
c)	Academic reputation of institution/ department	1	2	3	4	5	6
d)	Academic cooperation among colleagues here	1	2	3	4	5	6
e)	Region in which this institution is located	1	2	3	4	5	6

PROFESSIONAL ACTIVITY

TEACHING

Now we would like to ask about teaching, a subject which is at the very core of academic life. Please tell us about the time you spend teaching, the number of courses you now teach, and the number of students with whom you have contact.

31. Which of the following represents your teaching responsibilities at this institution? (Circle one number.)

1 Entirely undergraduate
2 Some undergraduate, some graduate or professional
3 Entirely graduate or professional
4 Not teaching this year **(Skip to Item 35)**

32. During this academic year, when classes are in session, approximately how many hours a week do you spend teaching at this institution?

a) Group instruction in classrooms and laboratories ________ Hours per week

b) Individualized instruction ________ Hours per week

33. How many different courses are you currently teaching at this institution?

a) Undergraduate introductory courses ________ Courses

b) Other undergraduate courses ________ Courses

c) Graduate and professional courses ________ Courses

34. How many students are currently enrolled in the courses you are teaching?

	Number in Undergraduate Introductory Courses	Number in Other Undergraduate Courses	Number in Graduate or Professional Courses
a) Smallest course	________	________	________
b) Largest course	________	________	________
c) Teaching only one course	________	________	________

This section asks questions about methods of instruction, the work you expect from students, and ways of assessing their performance.

35. In your introductory undergraduate courses, what *percentage* of class time is usually devoted to each of the following activities? (Figures should add to 100 percent. If you normally do **not** teach such courses, **skip to item 36**.)

	Undergraduate Introductory Courses
a) Lectures	________
b) Class discussion	________
c) Laboratory work	________
d) Other	________

36. As a general rule, which of the following activities do you require of your students for successful completion of a course? (Circle all that apply.)

	Undergraduate Introductory Courses	Other Undergraduate Courses	Graduate or Professional Courses
a) Attend class regularly	1	2	3
b) Write several short papers	1	2	3
c) Write a major paper	1	2	3
d) Make a formal oral presentation	1	2	3
e) Participate actively in class discussion	1	2	3
f) Take a single examination	1	2	3
g) Take two or more examinations	1	2	3
h) No specific requirements	1	2	3

37. Please indicate the way your teaching is influenced by the following circumstances:

		Strong Positive Influence		Neutral/ No Influence		Strong Negative Influence	Not Applicable
a)	The number of courses I am assigned to teach	1	2	3	4	5	6
b)	The kinds of courses I am assigned to teach	1	2	3	4	5	6
c)	The number of students enrolled in my classes	1	2	3	4	5	6
d)	The amount of students advising I do	1	2	3	4	5	6
e)	Teaching facilities and resources here	1	2	3	4	5	6
f)	My research commitments	1	2	3	4	5	6
g)	My administrative work	1	2	3	4	5	6
h)	The availability of research funding	1	2	3	4	5	6
i)	My non-academic professional activities	1	2	3	4	5	6

38. Please give us your personal opinion on each of the following statements about teaching conditions at your institution.

		Agree		Neutral		Disagree	Not Applicable
a)	Student opinions should be used in evaluating the teaching effectiveness of faculty.	1	2	3	4	5	6
b)	The pressure to publish reduces the quality of teaching at this institution.	1	2	3	4	5	6
c)	At this institution, we need better ways to evaluate teaching performance.	1	2	3	4	5	6
d)	Teaching effectiveness should be the primary criterion for promotion of faculty.	1	2	3	4	5	6

39. The following items deal with the *undergraduate* students you teach at this institution. Please give your opinion about their ability and performance. (If you do not teach undergraduate students, skip to item 40.)

		Agree		Neutral		Disagree	Not Applicable
a)	They are adequately prepared in written and oral communication skills.	1	2	3	4	5	6
b)	They are adequately prepared in mathematics and quantitative reasoning skills.	1	2	3	4	5	6
c)	They do just enough to get by academically.	1	2	3	4	5	6
d)	They are willing to cheat to get good grades.	1	2	3	4	5	6
e)	They are more studious than the students I had five years ago.	1	2	3	4	5	6
f)	Faculty should spend more time with students outside the classroom.	1	2	3	4	5	6

40. Regarding your own preferences, do your interests lie *primarily* in teaching or in research?

1 Primarily in teaching
2 In both, but leaning toward teaching
3 In both, but leaning toward research
4 Primarily in research

RESEARCH

In this section we turn to activities relating to research. We would like to learn more about the results of your own professional work as well as the funding and institutional support for research available to you.

41. How many of the following scholarly contributions have you completed in the past three years?

		Number Completed in Last Three Years
a)	Scholarly book you authored	______
b)	Scholarly book you edited	______
c)	Article published in an academic book or journal	______
d)	Research report or monograph written for funded project	______
e)	Paper presented at a scholarly conference	______
f)	Professional article written for a newspaper or magazine	______
g)	Patent secured on a process or invention	______
h)	Computer program written for public use	______
i)	Artistic work performed or exhibited	______
j)	Video or film produced	______
k)	Other (please specify): ______________________	______

IF YOUR ACADEMIC POSITION IN NO WAY REQUIRES THAT YOU DO RESEARCH, PLEASE CHECK HERE

________ *NO RESEARCH REQUIRED*

AND THEN SKIP TO ITEM 50.

42. Are you currently engaged in any research projects?

1 Yes
2 No **(Please skip to item 46)**

43. If yes, are you working independently on any of your research projects?

1 Yes
2 No

44. Do you have collaborators in any of your research projects?

1 Yes
2 No **(Please skip to item 46)**

45. If you have collaborators in any of your research projects, please indicate your formal relationship with them. (If more than one project is involved, circle all that apply.)

1 You are sole project director
2 You are joint project director
3 You are part of a team directed by someone else
4 You are part of a team with no explicit director
5 Other

46. Have you, as an individual or as part of an academic group, received any grants or special funding support for research in the last *three* years?

1 Yes
2 No **(Please skip to item 49)**

47. If you received such research funding, please estimate the total amount received during the *three-year* period:

1 Less than $5,000
2 $5,000 to $24,999
3 $25,000 to $49,999
4 $50,000 to $99,999
5 $100,000 to $249,999
6 $250,000 to $499,999
7 $500,000 or more

48. Which of the following sources have provided these research funds? (Circle all that apply.)

1 This institution
2 Government entities
3 Business firms
4 Private foundations
5 International organizations
6 Other (please specify): ________________

49. Please indicate the way your academic research is influenced by the following circumstances:

		Agree		Neutral	Disagree		Not Applicable
a)	The availability of research funding	1	2	3	4	5	6
b)	Facilities and resources for research here	1	2	3	4	5	6
c)	The number of courses I am assigned to teach	1	2	3	4	5	6
d)	The kinds of courses I am assigned to teach	1	2	3	4	5	6
e)	The number of students enrolled in my classes	1	2	3	4	5	6
f)	The quality of students available as research assistants	1	2	3	4	5	6
g)	The amount of student advising I do	1	2	3	4	5	6
h)	My non-academic professional activities	1	2	3	4	5	6
i)	My administrative work	1	2	3	4	5	6

50. Based on your experience at this institution, how do you feel about the following issues relating to academic research?

		Agree		Neutral	Disagree		Not Applicable
a)	A strong record of successful research activity is important in faculty evaluation at this institution.	1	2	3	4	5	6
b)	In my department it is difficult for a person to achieve tenure if he or she does not publish.	1	2	3	4	5	6
c)	At this institution publications used for promotion decisions are just "counted," not qualitatively evaluated.	1	2	3	4	5	6
d)	I frequently feel under pressure to do more research than I actually would like to do.	1	2	3	4	5	6
e)	In this country, there are no political or ideological restrictions on what a scholar may publish.	1	2	3	4	5	6
f)	Research funding in my field is easier to get now than it was five years ago.	1	2	3	4	5	6
g)	In my academic position at this institution, regular research activity is expected.	1	2	3	4	5	6
h)	A scholar's international connections are important in faculty evaluation at this institution.	1	2	3	4	5	6

SERVICE

In this section we ask questions about the professional work you do that extends beyond the traditional assignments of teaching and research. Specifically, we would like to know how much emphasis is placed on professional service, within and beyond the institution.

51. Service often includes such activities as paid or unpaid consulting work with clients or patients, and public or voluntary service. Thinking of your service activities during the past year, with which types of organizations have you worked? (Circle all that apply.)

    1 Business or industry
    2 Educational institutions
    3 Local government bodies
    4 National government bodies
    5 Private social service agencies (local and national)
    6 International government bodies
    7 Other international associations
    8 Other

52. Consider the time you spent engaged in such service activities last year. For what percentage of this time were you paid?

    ______ %

53. Please indicate the way your service activities are influenced by the following circumstances:

	Strong Positive Influence		Neutral/ No Influence		Strong Negative Influence	Not Applicable
a) The number of courses I am assigned to teach	1	2	3	4	5	6
b) The kinds of courses I am assigned to teach	1	2	3	4	5	6
c) The number of students enrolled in my classes	1	2	3	4	5	6
d) The amount of student advising I do	1	2	3	4	5	6
e) My research commitments	1	2	3	4	5	6
f) The availability of research funding	1	2	3	4	5	6
g) My administrative work	1	2	3	4	5	6
h) My non-academic professional activities	1	2	3	4	5	6

54. Please respond to the following statements about service activities.

	Yes	No	Not Applicable
a) Faculty in my discipline have a professional obligation to apply their knowledge to problems in society.	1	2	3
b) For me, service activity beyond the institution is a distraction and competes with essential academic work.	1	2	3
c) From an economic standpoint, it is necessary for me to engage in paid consulting work.	1	2	3
d) Service is important in faculty evaluation at this institution.	1	2	3

GOVERNANCE

In this section we examine how universities and colleges are governed. Specifically, we are interested in learning about the decision making structure at this institution as well as about your own role in this process.

55. Most governance arrangements in higher education are characterized as "centralized," "decentralized," or a blend of both. "Centralized" usually means that key decisions are made by top administrators (or a governing board). "Decentralized" means that such executive decisions are made by faculty of the institution.

At this institution, where are the following decisions usually made? (On the scale shown, 1 represents completely centralized, 5 represents completely decentralized, and 3 refers to an equal blend.)

	CENTRALIZED			DECENTRALIZED		
	(Control by top administrators)			(Control by faculty)		Don't Know
a) Selecting key administrators	1	2	3	4	5	6
b) Choosing new faculty	1	2	3	4	5	6
c) Making faculty promotion and tenure decisions	1	2	3	4	5	6
d) Determining budget priorities	1	2	3	4	5	6
e) Determining the overall teaching load of faculty	1	2	3	4	5	6
f) Setting admission standards for undergraduate students	1	2	3	4	5	6
g) Approving new academic programs	1	2	3	4	5	6

56. How influential are *you*, personally, in helping to shape key academic policies?

		Very Influential	Somewhat Influential	A Little Influential	Not at All Influential	Not Applicable
a)	At the level of the department or similar unit	1	2	3	4	5
b)	At the level of the faculty, school or similar unit	1	2	3	4	5
c)	At the institution level	1	2	3	4	5

57. Looking at this institution, please indicate how you feel about the following statements which relate to management and the decision-making process.

		Agree		Neutral	Disagree		Not Applicable
a)	Top-level administrators are providing competent leadership.	1	2	3	4	5	6
b)	I am kept informed about what is going on at this institution.	1	2	3	4	5	6
c)	Communication between the faculty and the administration is poor.	1	2	3	4	5	6
d)	The administration is often autocratic.	1	2	3	4	5	6
e)	Lack of faculty involvement is a real problem.	1	2	3	4	5	6
f)	Students should have a stronger voice in determining policy that affects them.	1	2	3	4	5	6
g)	The administration supports academic freedom.	1	2	3	4	5	6

58. Do you agree or disagree with the following statements about the amount of control you have in designing your courses and your research projects?

		Agree		Neutral		Disagree	Not Applicable
a)	At this institution, I am fully free to determine the content of the courses I teach.	1	2	3	4	5	6
b)	I can focus my research on any topic of special interest to me.	1	2	3	4	5	6

59. Is academic freedom strongly protected in this country?

1 Yes
2 No
3 Not applicable

60. Is your own work at this institution regularly appraised or evaluated?

1 Yes
2 No **(Skip to item 63)**

61. Which of the activities are appraised or evaluated regularly? (Circle all that apply.)

1 Teaching
2 Research
3 Service
4 Other (please specify) ______________

62. By whom is your teaching and research regularly evaluated? (Circle all that apply.)

		Your Teaching	Your Research
a)	Your peers in your department	1	2
b)	The head of your department	1	2
c)	Members of other departments at this institution	1	2
d)	Senior administrative staff at this institution	1	2
e)	Your students	1	2
f)	External reviewers	1	2

63. We would like you to respond to a few issues that focus on decision making in relation to the larger society.

	Agree		Neutral		Disagree	Not Applicable
a) The government should have the responsibility to define the overall purposes and policies for higher education.	1	2	3	4	5	6
b) In this country there is far too much governmental interference in important academic policies.	1	2	3	4	5	6

INTERNATIONAL DIMENSIONS OF ACADEMIC LIFE

The following section asks about the contacts you personally have with scholars in other countries as well as the international perspective of this institution.

Now we would like you to report on the extent to which you are engaged in international academic activities.

64. How many times in recent years have you:

	Past Three Years	Past Ten Years
a) Published articles or books in another country	______	______
b) Written an article or book in a language other than your mother tongue	______	______
c) Organized a class for students from another country	______	______

65. For how many months have you participated in the following professional activities:

	Past Three Years	Past Ten Years
a) Worked collaboratively with an academic from another country on a research project	______	______
b) Traveled abroad to study or do research	______	______
c) Served as a faculty member at an institution in another country	______	______
d) Spent a sabbatical abroad	______	______

66. During the *past three years* at this institution, how frequently have the following occurred?

	Frequently	Occasionally	Rarely	Never	Don't Know
a) Foreign academics have taught courses	1	2	3	4	5
b) International conferences and seminars have been held	1	2	3	4	5
c) Foreign students have been enrolled	1	2	3	4	5
d) Our students have studied abroad	1	2	3	4	5

67. We would like to learn more about your attitudes toward international connections in higher education. Please indicate how you feel about the following issues.

	Agree		Neutral		Disagree	Not Applicable
a) Connections with scholars in other countries are very important to my professional work.	1	2	3	4	5	6
b) In order to keep up with developments in my discipline, a scholar must read books and journals published abroad.	1	2	3	4	5	6
c) Universities and colleges should do more to promote student and faculty mobility from one country to another.	1	2	3	4	5	6
d) The curriculum at this institution should be more international in focus.	1	2	3	4	5	6

68. Looking beyond the campus, what priority should your government assign to dealing with the following global issues?

		Highest Priority	High Priority	Medium Priority	Low Priority
a)	Human rights	1	2	3	4
b)	Basic education	1	2	3	4
c)	World economy	1	2	3	4
d)	Environmental quality	1	2	3	4
e)	Population growth	1	2	3	4
f)	World food supply	1	2	3	4
g)	AIDS and other health issues	1	2	3	4
h)	Racial, ethnic, and religious conflicts	1	2	3	4
i)	Arms control	1	2	3	4

HIGHER EDUCATION AND SOCIETY

Finally, we would like you to reflect on higher education and the larger role it plays in society.

69. Looking to the future, what priority should higher education in your country give to each of the following?

		Highest Priority	High Priority	Medium Priority	Low Priority
a)	Educating students for leadership	1	2	3	4
b)	Preparing students for work	1	2	3	4
c)	Life-long learning for adults	1	2	3	4
d)	Preserving the cultural heritage	1	2	3	4
e)	Protecting free intellectual inquiry	1	2	3	4
f)	Promoting scholarship and research	1	2	3	4
g)	Strengthening the nation's capacity to compete internationally	1	2	3	4
h)	Helping to resolve basic social problems	1	2	3	4

One of the most critical issues for higher education in any country is determining the educational abilities of students and deciding who should be admitted to higher education.

70. In your opinion, what percentage of the young people in your country *are capable* of completing secondary education? _______%

71. In your view, what percentage of students in your country who complete secondary education *should* be admitted to higher education? _______%

72. Now we would like to know how you feel about the status and role of higher education in your country.

		Agree		Neutral		Disagree	Not Applicable
a)	Access to higher education should be available to all who meet minimum entrance requirements.	1	2	3	4	5	6
b)	Admission standards should be lowered to permit disadvantaged students to enroll at this institution.	1	2	3	4	5	6
c)	Academics are among the most influential opinion leaders.	1	2	3	4	5	6
d)	Respect for academics is declining.	1	2	3	4	5	6
e)	Government support for higher education should provide free tuition for all students at public institutions.	1	2	3	4	5	6
f)	Individuals and businesses should be encouraged to contribute more to higher education.	1	2	3	4	5	6
g)	Institutions of higher learning are increasingly subject to interference from special interest groups.	1	2	3	4	5	6
h)	The effectiveness of higher education is being threatened by growing bureaucracies.	1	2	3	4	5	6

Thank you very much for taking the time to complete this questionnaire.

Is there anything else you would like to tell us about higher education in your country? Any comments you make will be carefully reviewed by our research staff.

NOTES

NOTES

The Academic Profession in International Perspective

1. Only the West German *Länder* were included.
2. Due to local circumstances, somewhat fewer questionnaires were collected in Israel, Hong Kong, and Russia.
3. Response rates varied from 14 percent in Russia to 85.6 percent in Mexico. In most countries we were able to compare the respondents to The Carnegie Foundation survey with the characteristics of the total academic profession in the country and found that we had a fairly representative sample.
4. The English version of the questionnaire can be found in appendix C.
5. Burton R. Clark, *The Academic Life: Small Worlds, Different Worlds* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1987).
6. For a discussion of the role of cosmopolitans and locals in higher education, see Alvin W. Gouldner, "Cosmopolitans and Locals: Toward an Analysis of Latent Social Roles—1," *Administrative Science Quarterly* 2 (December 1957): 281–303.
7. Ibid.
8. It is necessary to interpret the figures concerning publications carefully. Since in most of the countries many respondents did not provide any answers at all to the questions relating to publications, it is possible to assume that at least some of these nonrespondents did not provide any answer because they had nothing to report—they had published nothing in the period under review.
9. See Ernest L. Boyer, *Scholarship Reconsidered: Priorities of the Professoriate* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1990), for a discussion of issues relating to teaching and research in the United States.
10. In his study of American academics over fifty years ago, Wilson commented on the fact that most research and publication is done by a small portion of the professoriate. Logan Wilson, *The Academic Man: A Study of the Sociology of a Profession* (1942; reprint, New Brunswick, NJ: Transaction, 1995).

Australia

Authors' Note: The authors gratefully acknowledge the assistance of Fiona Lacy.

1. J. Bowden and J. Anwyl, *The Social and Educational Roles and Values of Australian Academics Research Project* (Melbourne: University of Melbourne, Centre for the Study of Higher Education, 1978).

2. D. Anderson, *Sources of Australian Academics' Qualifications* (Canberra: Australian Government Publishing Service, 1993).

3. G. Blainey, *The Tyranny of Distance: How Distance Shaped Australia's History* (Melbourne: Macmillan, 1982).

4. In Australia today, the term "higher education" refers to all institutions offering education and/or professional training to at least first-degree level. The term "tertiary education" covers the whole range of postschool education, and thus includes technical and further education, a sector of vocational education and training that is not generally considered part of the higher education system.

5. At the commencement of the present study in 1991, there were thirty-six institutions that were members of the UNS. Since then there has been one disaffiliation, creating an additional university; and Ballarat University College in Victoria (already a member of the UNS) has also become a university in its own right.

6. The Australian Maritime College, Bachelor College, Marcus Oldham College of Farm Management, Avondale College; and Bond and Notre Dame universities, respectively.

7. Department of Employment, Education and Training (hereafter, DEET), *National Report on Australia's Higher Education Sector* (Canberra: Australian Government Publishing Service, 1993), 48.

8. Ibid., 46.

9. DEET, *Selected Higher Education Statistics, 1993* (Canberra: Australian Government Publishing Service, 1994), 63.

10. Ibid., 51.

11. DEET, *National Report*, 53.

12. Ibid., 8.

13. Murray Committee on Australian Universities, *Report of the Committee on Australian Universities* (Canberra: Commonwealth Government Printer, 1957).

14. Guy Neave and Gary Rhoades, "The Academic Estate in Western Europe," in *The Academic Profession: National Disciplinary and Institutional Settings*, ed. Burton R. Clark (Berkeley, CA: University of California Press, 1987), 212.

15. Martin Report of the Committee on the Future of Tertiary Education in Australia, *Tertiary Education in Australia* (Canberra: Australian Government Publishing Service, 1964).

16. DEET, *National Report*, 13.

17. The amalgamation between the University of New England and the Northern Rivers CAE has been "unstitched."

18. DEET, *Selected Higher Education Statistics*, 87.

19. For example, the National Priority (Reserve) Fund.

20. Committee for Quality Assurance in Higher Education.

21. Committee for the Advancement of University Teaching.

22. Staff Development Fund.

23. To put this into perspective, the average annual wage in Australia is about A$27,000, while the Australian dollar hovers around U.S.$0.70–0.74.

24. DEET, *National Report*, 138.

25. Ibid., 143.

26. Anderson, *Sources of Australian Academics' Qualifications*, 4.

27. Ibid., 11.

28. Ibid., 9.

29. Ibid.

30. This may reflect more general trends in the Australian workforce, which is the most sex-segregated among all Organisation for Economic Cooperation and Development (OECD) nations.

31. The Australian National University (ANU) was excluded from the sample because of its atypicality. Although nationally the ANU would publicly be regarded as a "top-tier" research university, it operates as an institute, with special (noncompetitive) funding and a very large proportion of nonteaching research staff.

32. For example, the current research by C. McInnis, M. Powles, and J. Anwyl (the Roles and Values of Australian Academics Research Project) had a 49 percent response rate.

33. B. Sheehan and A. Welch, *Profile of Australian Academics: Findings from the International Survey of Academic Staff* (Canberra: DEET, 1995).

34. The National Report on Australia's Higher Education Sector (1993), using different population measures, reports figures of 67 and 26 percent, respectively. DEET, *National Report*, 147.

35. Clark, ed., *Academic Profession*; Anderson, *Sources of Australian Academics' Qualifications*; M. Baker, F. Robertson, and J. Sloan, *The Role of Immigration in the Australian Higher Education Labor Market* (Canberra: Australian Government Publishing Service, 1993); National Science Foundation, *Foreign Citizens in U.S. Science and Engineering: History, Status and Outlook* (Washington, DC: National Science Foundation, 1986).

36. L. Saha and C. Atkinson, "Insiders and Outsiders in an Australian University," *International Journal of Comparative Sociology* 19 (1978): 201–16; L. Saha and A. Klovdahl, "International Networks and Flows of Academics: Overseas Recruitment in Australian Universities," *Higher Education* 9 (1979): 55–68.

37. Clark, ed., *Academic Profession*.

38. Anderson, *Sources of Australian Academics' Qualifications*.

39. Ibid., 7.

40. Baker, Robertson, and Sloan, *Role of Immigration*, 13.

41. DEET and Organisation for Economic Co-operation and Development (OECD), *The Transition from Elite to Mass Higher Education* (Sydney: DEET/OECD, July 1993).

42. I. Lowe, "Erosion of Research Funds Cuts Ground from under Our Academics," *The Australian*, 22 June 1994, 24–25.

Korea

Author's Note: The author would like to thank Hyaeweol Choi for her contribution in revising an earlier version of this chapter.

1. Korean Educational Development Institute, *Educational Indicators in Korea* (Seoul: Korean Educational Development Institute, 1992), 57.

2. Sungho Lee, "The Emergence of the Modern University in Korea," in *From Dependence to Autonomy*, eds. P. G. Altbach and V. Selvaratnam (Dordrecht: Kluwer Academic Publishers, 1989), 227–56.

3. The rate of economic return from a university education has been quite high. When the wage level of high-school graduates is standardized as 100, the wage level of middle-school graduates is 84.6, while that of

junior vocational college graduates is 117.4, and that of four-year college and university graduates is 179.3, according to the 1991 occupational wage survey. Economic Planning Board, *Social Indicators in Korea, 1992* (Seoul: Economic Planning Board, 1992), 132.

4. The re-examinees used to be those high-school graduates who repeatedly took the annual college entrance examination to gain admission to the top four-year institutions. Now, the re-examinees also include those who have failed and repeatedly taken the entrance examination to any four-year institution of higher education. For instance, in 1992, 38.4 percent of the total number of examinees for the four-year institution admissions were re-examinees. National Institute of Educational Evaluation, *Statistical Yearbook of Education, 1992* (Seoul: Ministry of Education, 1992), 680.

5. Korean Council for University Education, *Daehak kikwan pyungka bokoso* (The 1985 university evaluation report) (Seoul: Korean Council for University Education, 1985), 178.

6. Sungho Lee, *Daehak kyoyook gwajungron* (Curriculum development in Korean universities and colleges) (Seoul: Yonsei University Press, 1987), 71–97.

7. Ransoo Kim, et al., *Daehakwon pyungka bokoso* (The 1985 graduate education evaluation report) (Seoul: Korean Council for University Education, 1985), 55.

8. Yonsei University, *Daehakwon yoram* (Graduate school catalog, 1984–85) (Seoul: Yonsei University Press, 1984), 15.

9. The Korean Council for University Education, since its establishment in 1982, has published an annual roster of the Korean professoriate working full time in four-year colleges and universities. The roster published in 1990 included a total of 26,365 professors in all 125 colleges and universities. To decide the initial sample size for the mailed questionnaire survey, it was estimated that a minimum of 30 percent would return their questionnaires. Since the research directors in each country agreed to obtain a minimum of one thousand completed questionnaires per country, the initial sample size in Korea was set at about thirty-three hundred professors. Based on this consideration, the systematic sample consisted of the selection of every eighth name. After selecting the first name randomly from among the first eight names in the abovementioned roster, an initial sample of 3,274 faculty members was selected. A total of 903 full-time faculty members submitted completed questionnaires. This final sample accounted for 27.6 percent of the initial sample and 3.4 percent of the entire population. One of my

immediate concerns in conducting this questionnaire survey was to what extent the final sample would be representative of the population. With this concern, I drew statistical data on the demographic characteristics of the population, which was presented in the 1990 academic year roster of the Korean professoriate published by the Korean Council for University Education.

10. Woochul Kang, Insook Chang, and Sungho Lee, *Daehak kyosoozawon teuksung yonkoo* (An analysis of the characteristics of university professors) (Seoul: Korean Council for University Education, 1983), 24.
11. Jongchol Kim et al., *A Comprehensive Study of the Contents of Higher Education: Faculty Development* (Seoul: Central Education Research Institute, 1967), 32.
12. Lee, *Daehak kyoyook gwajungron*, 159.
13. Kang, Chang, and Lee, *Daehak kyosoozawon teuksung yonkoo*, 37.
14. Lee, *Daehak kyoyook gwajungron*, 79.
15. Ibid., 179.

Japan

1. Over the past twenty years, there have been a number of sociological studies on higher education and also on the academic profession. See M. Shinbori, *Nihon no Daigaku Kyoju Shijo* (Academic marketplace of Japan) (Tokyo: Toyoukan, 1964); W. K. Cummings, *Nihon no Daigaku Kyoju* (University professors in Japan) (Tokyo: Shiseido, 1972); M. Shinbori, ed., *Daigaku Kyojushoku no Sougouteki Kenkyu* (Comprehensive study of the academic profession) (Tokyo: Taga Shuppan, 1984); W. K. Cummings, I. Amano, K. Kitamura, eds., *Changes in the Japanese University: A Comparative Perspective* (New York: Praeger, 1979); A. Arimoto, *Daigakujin no Shakaigaku* (Sociology of the academic profession) (Tokyo: Gakubunsha, 1981); T. Ehara, *Gendai Koto Kyoiku no Kozo* (Structure of modern higher education) (Tokyo: Tokyo Daigaku Shuppankai, 1984); M. Ushiogi, *Kyouto Teikoku Daigaku no Chosen* (Challenge of Kyoto Imperial University) (Nagoya: Daigaku Shuppankai, 1984); A. Yamanoi, *Daigaku Kyoju no Ido Kenkyu* (Study of the mobility of university professors) (Tokyo: Toushindo, 1990). For a look at research trends, see A. Arimoto, "Koutoukyouiku Kenkyu: Sono Shakaigakuteki Kenkyu" (Review of sociological research in higher education), *Kyouikushakaigaku Kenkyu* 50 (1992); and A. Arimoto, "Kenkyu no Kenkyu niokeru Kaiko to Tenbo" (Retrospect and perspective in studies on research), *Daigaku Ronshu* 22 (1993).

2. B. R. Clark, *The Higher Education System* (Berkeley, CA: University of California Press, 1983); B. R. Clark, *The Academic Life* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1987).
3. The legal definition of ***daigaku kyojushoku*** (professoriate) is found in the 1947 School Education Law and its subsequent amendments, which legally define the category of "***daigaku***" (literally, grand schools, but generally translated as "university") and of academic staff. "***Daigaku*** should have presidents, professors, associate professors, assistants, and clerical staffs" (School Education Law, no. 58-1); "***daigaku*** can have vice presidents, lecturers, technicians, and other staff beside the staff referred to in the previous article" (School Education Law, no. 58-2). The category of professor might be restricted to (full) professor according to the legal description, but in this chapter, as in common usage, the term encompasses not only professors but also associate and assistant professors, and assistants (who are not included in the survey).
4. In March 1992, questionnaires were sent to 4,000 academics (of which 22.7 percent, or 910 faculty, were at research universities and the remaining 77.3, or 3,090 faculty, were at the other universities), followed in April by a reminder letter. Respondents sent completed questionnaires to the Research Institute for Higher Education, Hiroshima University. Questionnaires received through May 31, 1992, totaled 1,889, for a 47.2 percent return rate.

   Sampling of this survey was based on the data of June 30, 1990: the data for undergraduate-level institutions listed in Daigaku Kijun Kyokai (University Accreditation Association), ed., *Heisei ninendo Daigaku Ichiran* (Lists of universities and colleges in 1990). For this survey a two-stage sampling procedure was used. Initially, universities were sampled, and then professors (faculty) were sampled from within those institutions. Prior to sampling, higher education institutions were divided into research universities (***kenkyu-daigaku***) versus all other universities. The criteria used to identify research universities were taken from the typology developed by Ikuo Amano in "Daigaku Bunrui no Houhou" (Method for the classification of universities and colleges), in *Daigaku Hyouka no Kenkyu* (Study of university evaluation), ed. Tominaga Keii (Tokyo: Tokyo Daigaku Shuppankai, 1984). Thirty institutions were designated as research universities and 475 as "other" institutions. Then, in order to select one institution for each 5 percent of the permanent academic staff (faculty), faculty members and institutions were distributed as follows for sampling:

	NUMBER OF INSTITUTIONS	NUMBER OF PERMANENT ACADEMIC STAFF	PERCENTAGE OF ACADEMIC STAFF	INSTITUTIONS SELECTED FOR THE SAMPLE
Research universities	30	18,993	22.7	4
All other universities	475	64,626	77.3	15
Total	505	83,619	100.0	19

To prepare for sampling academics, the institutions within each type were sorted into small, medium, and large as follows:

	RESEARCH UNIVERSITIES	OTHER INSTITUTIONS
Large	10	158
Medium	10	159
Small	10	158
Total	30	475

5. M. Trow, "Problems in the Transition from Elite to Mass Higher Education," in *Policies for Higher Education* (Paris: Organisation for Economic Co-operation and Development, 1974), 51–101.
6. Japanese faculty in this survey estimate that about 75 percent of secondary school students are capable of graduating from secondary education in Japan, and that more than 50 percent of such graduates (eg. about 38 percent of secondary school students) should be admitted to institutions of higher education. At present, 45 percent of secondary school graduates are admitted to colleges or universities. This means that the mass expansion of the system has developed to the extent that the actual enrollment percentage has already exceeded the faculty's estimated ideal number.

7. Universities require the completion of twelve years of schooling (six years of elementary, three years of middle, and three years of high school education) or their equivalent for admission. Undergraduate programs last four years—except those in medicine and dentistry, which extend to six years. Graduate study is traditionally divided into two parts: the master's program which requires two years and the doctoral program which takes three years.

8. Monbusho, *Monbu Tokei Yoran* (Educational statistics) (Tokyo: Daiichi Hoki Shuppan, 1992).

9. Ibid.

10. M. Nagai, *Higher Education in Japan: Its Take-off and Crash* (Tokyo: University of Tokyo Press, 1972); I. Amano, *Koto Kyoiku no Nihonteki Kozo* (Tokyo: Tamagawa Daigaku Shuppanbu, 1986); I. Amano, *Kindai Koto Kyoiku Kenkyu* (Tokyo: Tokyo Daigaku Shuppankai, 1989).

11. In addition to criteria contained in the Amano model mentioned in note 4, we also considered the ratio of graduate to undergraduate students and the age of the institution.

12. Unfortunately, sampling did not take into account the public–private typology explained above, and hence comparisons between public and private institutions are not discussed in depth in this chapter. However, it should be noted that most of the research universities are in the public sector, while very few private institutions can be characterized as research oriented.

13. Monbusho, *Monbu Tokei Yoran.*

14. Graduates of Tokyo University, the leading institution, still command a relatively large portion of the overall academic marketplace, in spite of a decline from 24.8 percent in 1960 to 15.4 percent in 1980 (the most recent year for which statistics are available). In addition, this university has the highest self-supply ratio among all universities, although this ratio has declined from 95.3 percent in 1962 to 87.9 percent in 1982. See M. Shinbori, ed., *Daigakukyojushoku no Sougouteki Kenkyu*; A. Yamanoi, *Daigakukyoju no Ido Kenkyu*; and A. Arimoto, "The Academic Structure in Japan: Institutional Hierarchy and Academic Mobility," Yale Higher Education Working Paper no. 27, Institute for Social and Policy Studies, 1978.

15. Daigaku Shingikai, *Soshikiunei Bukai niokeru Shingi no Gaiyo* (Summary of deliberations of the Committee on Organization Governance), 1993. A 1982 national survey indicated that the main research universities had

high levels of inbreeding. For example: University of Tokyo (87.9 percent), Kyoto (81.6 percent), Waseda (80.6 percent), Keio (78.0 percent), Kyushu (65.5 percent), Hokkaido (65.3 percent), Osaka (60.8 percent), Tohoku (59.1 percent), and Tokyo Kogyo (56.4 percent). See M. Shinbori, *Daigaku Kyojushoku no Sogouteki Kenkyu*, 63.

16. Monbusho, *Monbu Tokei Yoran*. Of course, the proportion is fairly high—in the *tanki-daigaku* segment, where higher education for female students has played a substantial role—30.4 percent in 1955 and 38.4 percent in 1991.

17. Monbusho, *Monbu Tokei Yoran*.

18. Ibid.

19. J. Kikuchi, ed., *Kyoiku to Shakaiido* (Education and social mobility), vol. 3 of *Gendai Nihon no Kaiso Kozo* (Structure of social stratification in present-day Japan) (Tokyo: Tokyo Daigaku Shuppankai, 1990), 220.

20. Ibid.

21. As Joseph Ben-David points out, Japan was ranked as a periphery in relation to the centers of learning, but this situation has changed dramatically due to the high scientific productivity of Japanese academics, mostly from research universities. Scholars and scientists in Japan, especially in chemistry, physics, and engineering, have a higher profile in the international scientific community than was the case two decades earlier. T. Keii, *Daigaku Hyoka no Kenkyu* (Study of university evaluation) (Tokyo: Tokyo Daigaku Shuppankai, 1986); A. Arima, *Kagaku Shobunya no Kenkyuronbun Hyoka* (Evaluation of scientific papers) (Kagaku-kenkyuhi-Hojokin Kenkyuseika Hokokusho) (Tokyo University, 1990); M. Shinbori, ed., *Gakumon Gyoseki no Hyoka* (Evaluation of scientific achievement) (Tokyo: Tamagawa Daigaku Shuppanbu, 1986); and A. Arimoto, ed., *Gakumon Chushinchi no Kenkyu* (Study of the centers of learning) (Tokyo: Toushindo, 1994).

22. J. Ben-David, *Centers of Learning* (New York: McGraw-Hill, 1977); M. Shinbori, ed., *Gakumon Gyoseki no Hyoka*.

23. M. Naoi and K. Moriyama, eds., *Shakaikaiso no Kozo to Katei* (Structure and the process of social stratification), vol. 1 in *Gendai Nihon no Kaisoukozou* (Social stratification in present-day Japan) (Tokyo: Tokyo Daigaku Shuppankai, 1990), 188–92; K. Tominaga, *Nihon no Shakai Kozo* (Social structure of Japan) (Tokyo: Daigaku Shuppankai, 1979).

24. I. Amagi and T. Keii, eds., *Daigaku Setchi Kijun no Kenkyu* (Study of university accreditation) (Tokyo: Tokyo Daigaku Shuppankai, 1977); T.

Keii, ed., *Daigaku Hyoka no Kenkyu*; and K. Kitamura, *Daigaku Hyoka towa Nanika* (What is university evaluation?) (Tokyo: Toushindo, 1993). For a discussion of current government policy on higher education, see Ministry of Education, Science and Culture, *Japanese Government Policies in Education, Science and Culture 1990* (Tokyo: Okurasho Insatukyoku, 1992); A. Arimoto and E. de Weert, "Higher Education Policy in Japan," in *Higher Education Policy: An International Perspective*, ed. L. Goedegebuure, F. Kaiser, P. Maassen, L. Meek, F. van Vught, E. de Weert (Oxford: Pergamon Press, 1994), 162–87.

25. As of 1993, graduate students made up 5.1 percent of the total student population. The number of graduate students was 122,358—master's level, 86,839; doctoral level, 35,469. The number of undergraduate students was 2,389,651. See Monbudaijin Kanbo Chosa Tokei Kikakuka, *Gakkokihonchosa Sokuho*, August 1993.

26. See R. K. Merton, *Sociology of Science* (Chicago: University of Chicago Press, 1973). A. Arimoto, ed., *Daigaku Hyoka to Daigaku Kyojushoku* (University evaluation and the academic profession) (Hiroshima: Research Institute for Higher Education, Hiroshima University, 1993).

Hong Kong

1. See, for example, Merle Goldman, with Timothy Cheek and Carol Lee Hamrin, eds., *China's Intellectuals and the State: In Search of a New Relationship*, Harvard Contemporary China Series 3, the Council on East Asian Studies (Cambridge, MA: Harvard University Press, 1987); Richard Madsen, "The Spiritual Crisis of China's Intellectuals," in *Chinese Society on the Eve of Tiananmen: The Impact of Reform*, ed. Deborah Davis and Ezra Vogel, Harvard Contemporary China Series 7, the Council on East Asian Studies (Cambridge, MA: Harvard University Press, 1990); and Merle Goldman, "The Intellectuals in the Deng Xiaoping Era," in *State and Society in China: The Consequences of Reform*, ed. Arthur Lewis Rosenbaum (Boulder, CO: Westview Press, 1992).

2. See the "Annual Address" by Gov. David Wilson to the Legislative Council, Oct. 11, 1989, reprinted in *Hong Kong 1990: A Review of 1989*, ed. David Roberts (Hong Kong: Government Printer, 1990), 4–22; see also University Grants Committee Secretariat, *University Grants Committee of Hong Kong: Facts and Figures, 1994* (Hong Kong: University Grants Committee Secretariat, April 1995). The figure of fifty-eight thousand refers only to the number of students in the seven institutions of higher

education under the University Grants Committee, and includes undergraduate and graduate, as well as subdegree students.

3. Hugh Witt, ed., *Hong Kong Yearbook 1993: A Review of 1992* (Hong Kong: Government Printer, 1993). The six universities and the one tertiary college are funded through the University Grants Committee, while the Academy of Performing Arts is funded by the Recreation and Culture Branch of the government. Hong Kong also has a postsecondary institution, Shue Yan College, which is privately funded.

4. See the October 1992 statement, "Higher Education in Hong Kong," University and Polytechnic Grants Committee Secretariat, UPGC/GEN/222/90.

5. Bernard Mellor, *The University of Hong Kong: An Informal History* (Hong Kong: Hong Kong University Press, 1980).

6. Anthony Sweeting, *A Phoenix Transformed: The Reconstruction of Education in Post-War Hong Kong*, East Asian Historical Monographs (Hong Kong: Oxford University Press, 1992).

7. *A Perspective on Education in Hong Kong: Report by a Visiting Panel* (Hong Kong: Government Printer, 1982), 65.

8. *Education Commission Report No. 3: The Structure of Tertiary Education and the Future of Private Schools* (Hong Kong: Government Printer, 1988).

9. *Hong Kong Council of Academic Accreditation: Handbook, 1994* (Hong Kong: Hong Kong Council of Academic Accreditation, 1994).

10. *University Grants Committee of Hong Kong: Facts and Figures* (Hong Kong: University Grants Committee Secretariat, 1995).

11. *Basic Law of the Hong Kong Special Administrative Region of the People's Republic of China* (Hong Kong: Consultative Committee of the Basic Law, 1990).

12. Ibid.

13. See *Hong Kong Becoming China: The Transition to 1997*, a series of volumes edited by Gerard A. Postiglione and Ming K. Chan. Among relevant volumes are: Gerard A. Postiglione in collaboration with Juliam Y. M. Leung, eds., *Education and Society in Hong Kong: Toward One Country and Two Systems* (Armonk, NY: M. E. Sharpe; Hong Kong: Hong Kong University Press, 1991); and Reginald Kwok and Alvin So, eds., *The Hong Kong–Guangdong Economic Nexus: Partnership in Flux* (Armonk, NY: M. E. Sharpe; Hong Kong: Hong Kong University Press, 1995).

14. See *Higher Education in Hong Kong, 1995–2001: An Interim Report* (University and Polytechnic Grants Committee, November 1993).

15. See Annex N (letter of Dec. 7, 1993, from the Dean, Faculty of Law, Professor Raymond Wacks) in University Senate minutes, item no. 24, University of Hong Kong, Mar. 1, 1994.

16. See Kin Bing Wu, *Higher Education in Hong Kong: Investment in Science and Technology during the Time of Political and Economic Change*, Education and Population Division, Population and Human Resource Department, World Bank, December 1992.

17. See Gerard A. Postiglione and James Tang, eds., *Hong Kong's Reunion with China: The Global Dimensions* (Armonk, NY: M. E. Sharpe, 1997).

18. Type I institutions were universities before 1994.

19. Data supplied by the University Grants Committee in Annex A of a letter from Brian Lo, for the secretary general, University Grants Committee, March 8, 1994.

20. A staff list from each institution was used. After selection of a random number, every third person was sampled across departmental listings arranged by ranks. The UPGC figure for total academic staff across institutions for 1993–94 was 3,562. The sampling process using staff lists yielded 1,247 names, approximately 35 percent of the population. There were 461 respondents for an approximately 37 percent response rate, which accounts for about 13 percent of the total population. Completed surveys were returned either to the General Post Office in the Central District or to one of the institutional monitors.

21. Overseas appointees may remain in Hong Kong for less time than it takes to earn tenure. Overseas terms usually include better housing accommodations and travel allowances, along with other benefits, in some cases. Eligibility is based on overseas residency. However, because Hong Kong is an emigrant as well as an immigrant society, there are many Chinese (including those originating from Hong Kong, Taiwan, other parts of Southeast Asia, Western countries, and mainland China, who come after long periods of study in the United States and other places) as well as non-Chinese employed on overseas terms. Moreover, local appointees are not solely comprised of those who are ethnic Chinese; there are also a few individuals, usually long-term residents of Hong Kong, who are "Westerners," included in this category. The differences between local and overseas terms gradually disappear with promotion to higher rank; nevertheless, the appointment itself is still classified as local

or overseas. Since the survey was completed, universities have taken measures to dismantle differences between local and overseas terms.

22. These figures from type II institutions follow type I institution–equivalent ranks. During the time the survey was conducted, a reclassification of academic staff was being carried out. For example, polytechnics and colleges had some faculty classified as lecturers and others as university lecturers, the latter denoting the conversion to the new system. In the old system of classification, a polytechnic/college senior lecturer rank was roughly equivalent to a university lecturer rank. A principal lecturer in a type II institution was roughly equivalent to a type I institution senior lecturer. In short, type I institution (nonclinical) ranks were used as the standard of measure. See also note no. 26.

23. The departments or units with the highest percentage of faculty employed are engineering (15 percent), humanities (14 percent), social science (13 percent), business (11 percent), health sciences (11 percent), and biological sciences (6 percent). If we divide fields of specialization according to two categories: science and technology (S&T), and social sciences and humanities (SS&H), the number of respondents are nearly equal. The universities have a little more than half (54 percent) of the S&T faculty and less than half (41 percent) of the SS&H faculty. S&T faculty had more advanced degrees. Sixty-four percent had a doctorate, while only 45 percent of SS&H faculty had one. Despite this, tenure levels were nearly the same (S&T, 45 percent and SS&H, 46 percent). There were also a similar number (61 percent of S&T and 58 percent of SS&H faculty) appointed on overseas and local terms. While overseas appointees are distributed somewhat evenly across fields, higher proportions are found in law and medicine.

24. Hong Kong faculty also had the highest percentage of those responding no to the question, "Do you currently hold other paid non-academic positions outside the institution?" The relatively high salaries also have to be viewed against the cost of living in Hong Kong, where property values are among the highest in the world. Another reason why overseas appointees rate their salaries more highly than do local appointees is because the former are earning more buying power in their home society than are the latter.

25. With effect from 1992, the Government approved the extension of the university salary scales to all staff "primarily engaged in degree-level work" at the then Polytechnics and Colleges. Since 1975, most of the UGC-funded institutions began to implement, or investigate implementation

of, common terms of service, i.e., without distinction between local and overseas appointees. Nevertheless, by 1993, when the survey was conducted, the institutions were still a long way from complete parity of overseas and local terms.

26. The choices offered, with the percentage of respondents indicating a strong reason to leave, were as follows: income (6 percent), resources for research (11 percent), academic reputation of the institution (13 percent), academic cooperation among colleagues (11 percent), region in which the institution is located (10 percent), and other reasons (56 percent). One-third of the respondents indicated "other reasons" as their strong reason to leave. Of this group, 79 percent specified the reason by writing it in the space provided. One-third of them indicated reasons having to do with Hong Kong's post-1997 status. The remainder indicated a variety of factors including retirement, promotion, bureaucracy, administration, management, workload, end of contract, change of career, and personal reasons. The ranking of type I institutions differed from those for type II institutions. The rank order of strong reasons (excluding "other reasons") for type I institutions was region, resources for research, academic cooperation, academic reputation, and income. For type II institutions the ranking was academic reputation, resources for research, academic cooperation, income, and region. Of those in the science and technology areas, resources for research was the strongest reason aside from the category "other reason."

27. A change of titles (from the assistant lecturer, lecturer, senior lecturer, reader, and professor categories to the lecturer, associate professor, professor categories) has been considered by the University of Hong Kong Senate. There is little uniformity in the system of academic titles among the seven UGC institutions of higher education. For example, the City University has three systems of titles. It has retained the old polytechnic system of titles (professor, principal lecturer, senior lecturer, lecturer, and assistant lecturer) because it still has subdegree programs. As part of the conversion to a university in 1993–94, the second system of titles (professor, reader/university senior lecturer, university lecturer, university assistant lecturer) was introduced. Since some faculty teach in both subdegree and degree programs, there is an option for those with the old polytechnic titles to apply for the new university titles, though some staff have chosen to maintain their old titles. On May 6, 1995, a third system was introduced to exist alongside the other two. It permits those in the second system to adopt a more standard system of titles (professor, associate professor, assistant professor, lecturer).

28. See the three scenarios in *Higher Education, 1991–2000: An Interim Report* (Hong Kong: University and Polytechnic Grants Committee, November 1993), 7.

29. The variance across institutions was relatively small. The influence of research commitments had slightly more of a positive influence on teaching in type I institutions than in type II institutions, for example. The influence of administrative work had less of a positive influence in the universities than in the other institutions.

30. Less than H.K.$400,000 (U.S.$1=H.K.$7.8).

31. The low proportion of doctorates can be explained partially by the fact that the type II universities still retain some subdegree courses.

32. Faculty were asked, "On average, how would you compare the quality of students currently enrolled in your department with the quality of students enrolled five years ago?" They answered as follows: 4.3 percent, "better now"; 13.6 percent, "about the same"; 47 percent, "better five years ago"; and 35.1 percent, "don't know." A related survey question referred to undergraduate students at their institution: "They are more studious than students I had five years ago." In response, 8.1 percent agreed; 21.1 percent were neutral; 43.8 percent disagreed; and for 22 percent, the question was not applicable.

Brazil

1. The social and cultural origins of the perception of the university and the academy as unified entities sharing a common epistemology has been stressed by authors such as Clark Kerr (in his well-known introduction to Abraham Flexner's book on American, British, and German universities) and Clifford Geertz. The cultural diversity of academic disciplines was pointed out by Tony Becher in his several writings. See Abraham Flexner, *Universities: American, English, German* (introduction by Clark Kerr) (New York: Oxford University Press, 1968); Clifford Geertz, *Local Knowledge: Further Essays in Interpretive Sociology* (New York: Basic Books, 1983); Tony Becher, *Academic Tribes and Territories: Intellectual Enquiry and the Cultures of Disciplines* (Milton Keynes, U.K.: Society for Research into Higher Education/Open University Press, 1989).

2. In this text, we shall use the words "academics" and "professors" interchangeably. Cross-national variations in the use of these expressions are a further indication of the varying culture of the academic profession. In

Brazil, the word "professor" is used indiscriminately to refer to anyone who teaches something. The word "academics," on the other hand, is usually restricted to the members of the Academies of Letters and has a slightly pejorative connotation in common parlance.

3. Public institutions were also created by some municipalities and state governments, without, however, approaching the levels of investment and significance of the São Paulo and the federal systems.

4. C. de Moura Castro, "Hã produção científica no Brasil?" in *Pesquisa Universitária em Questão*, Campinas, ed. S. Schwartzman and C. M. Castro (São Paulo: Ed. da UNICAMP, 1986), 190–224; T. Schott, "Performance, Specialization and International Integration of Science in Brazil: Changes and Comparisons with Other Latin American Countries and Israel," in *Science and Technology in Brazil: A New Policy for a Global World*, ed. Simon Schwartzman (Rio de Janeiro: Fundação Getúlio Vargas, 1994).

5. For an overview, see S. Schwartzman, "Brazil," in *The Encyclopedia of Higher Education*, ed. Burton R. Clark and Guy Neave, vol. 1 (Oxford: Pergamon, 1992), 82–92.

6. The field work was carried on by DataFolha, a research firm associated with the São Paulo newspaper *Folha de São Paulo*.

7. In spite of its large territory, Brazil is geographically very isolated, its only busy frontiers being those in the South.

8. Important exceptions, which do not appear in our sample, are some universities in the South, such as the Universidade de Santa Catarina and of Rio Grande do Sul, that have a great number of German descendants in their ranks and keep active links with German institutions.

9. The Carnegie study shows that Brazil in particular, and Latin America generally, has a much higher proportion of women in the academic profession than is the case in other countries.

10. Jacques Schwartzman, *Universidades Federais no Brasil: uma avaliação de suas trajetórias (décadas de 70 e 80)*, Universidade de São Paulo, NUPES, Documento de Trabalho 4/93, 18.

11. In table 6.10, whenever the sum of working hours in a week reported by a respondent was more than forty hours, the values were reduced proportionally to that value; if the sum was less, the difference was attributed to "other activities." Thus, all answers were standardized, for comparison's sake, to the same forty-hour work week.

12. The findings regarding "sabbatical leaves" are misleading, since such leaves are not institutionalized in Brazilian universities, except in a very few places.
13. Several questions distinguish "undergraduate introductory course" from "other undergraduate" and "graduate and professional" (a classification that does not apply in Brazil).
14. Legally, all private educational institutions in Brazil are supposed to be nonprofit and linked to a supporting entity. In practice, many of them are run as proprietary, profit-making establishments.
15. For an overview, see S. Schwartzman, "Brazil: Opportunity and Crisis in Higher Education," *Higher Education* 17, no. 1 (1988): 99–119.

Chile

Author's Note: Viterbo Apablaza provided valuable assistance in the field work; Seppo Heikkinen and Sonia Peruzzi prepared the tables required in the analysis; and coordinators in each of the fourteen universities assisted both in the collection of the data and in the analysis of each of the institutions.

1. J. J. Brunner, *Informe Sobre Educación Superior en Chile* (Santiago: FLACSO, 1986).
2. T. Castaneda, *Innovations in the Financing of Education: The Case of Chile*, Report EDT35 (Washington, DC: World Bank, 1986).
3. These problems are not discussed when the Chilean reform is presented as a model to be followed. See for example, *Higher Education: The Lessons of Experience* (Washington, DC: World Bank, 1994).
4. Fourteen universities were included in the Chilean sample: six universities operating in 1980 (Austral, Catolica-Chile, de Chile, Concepción, Santiago, and U.T.F. Santa Maria), seven universities created from former campuses of the public system (Antofagasta, del Bio-Bio, Instituto Profesional de Osorno, la Serena, La Frontera, Metropolitana de Ciencias de la Educación, Playa Ancha de Ciencias de la Educación), and one of the "new" private universities created under the 1981 reforms (Diego Portales).
5. P. Arriagada, *El financiamiento de la educación superior en Chile 1960/1988* (Santiago: FLACSO, 1989).
6. A. Sanfuentes, *Desarrollo de las Universidades Privadas en Chile* (Santiago: Ilades, 1988).

7. A law being discussed at this time in Congress will limit monthly payments to 5 percent of salary, with the balance to be canceled after ten to fifteen years of repaying the loan.

8. In the first stage, fourteen universities were randomly selected. From each one of these fourteen universities, a sample of professors was, again, selected at random. The questionnaire and a cover letter promising a summary of the findings were mailed to the staff included in the sample. In 1991, there were 1,958 valid responses from the sample of 2,235 university professors. In 1993, there were 1,058 responses from a sample of 1,859 professors. The high percentage of responses received (84 percent in the first sample and 54 percent in the second) from the university professors is much higher than the expected response rate, and clearly reflects the interest of the academic staff in this subject matter. The first sample included an oversampling in each of the small universities. A selective analysis of the sample suggests that part-time academic staff (mainly professors hired on an hourly basis) are underrepresented (probably half of the negative responses correspond to staff with less than half-time appointments). The same problem exists in the second sample. Most of the data presented in this chapter come from the 1991 sample of Chilean professors.

9. E. D'Etigny, "Desarollo cientifico y tecnologico en Chile," *Panorama Cientifico* 9 (April 1994), 2–28.

10. Ministerio de Educación, *Bases para la formulación de políticas públicas de formación y perfeccionamiento docente,* Santiago de Chile, Julio 1993.

11. Oficina Regional de Educación para América Latina y el Caribe (OREALC), "Recommendations from the Seminar on Reading and Writing," *Bulletin* 30 (August 1993).

12. OREALC, "Characteristics of the Teaching Profession and Quality of Education in Latin America," *Bulletin* 34 (August 1994).

13. Responses for the 1993 sample are used for comparisons with developed countries, because the final version of the international questionnaire was used in that sample.

14. This salary level is about three times the national per capita income (U.S.$3,000 in 1992). This ratio is a more relevant indicator in terms of quality of life.

15. The rate is 51 percent in countries in the Organisation for Economic Co-operation and Development versus 21 percent in Latin America. See *Higher Education: The Lessons of Experience,* 15.

16. L. Riveros, *The Rate of Return to Schooling in Chile: A Long Term Overview* (Washington, DC: World Bank, 1986).

Mexico

Author's Note: The development of the present research would have been impossible without the help of the Area of Sociology of the Universities, Autonomous Metropolitan University at Azcapotzalco, especially of Rocío Grediaga, and several members of the Interinstitutional Research Team on Mexican Academics, to all of whom I express my appreciation. I would also like to thank the Interinstitutional Research Program on Higher Education based at the Autonomous University of Aguascalientes, which collaborated in the administration of the questionnaire. To my colleagues at The Carnegie Foundation for the Advancement of Teaching, who coordinated and facilitated the research, and especially to Gene Haas, my appreciation and friendship. And finally, to the Mexican professors who gave their time and helped us to learn so much, my most sincere thanks.

1. Olac Fuentes Molinar, "Explorando en la Universidad," *Sociológica* 5 (1987): 7.
2. Asociación Nacional de Universidades e Instituciones de Enseñanza Superior (ANUIES), *Anuario Estadístico, 1992* (Mexico City: ANUIES Press, 1993).
3. Apart from the research coordinated by The Carnegie Foundation for the Advancement of Teaching, another research project was coordinated by the Area of Sociology of Universities, of the Department of Sociology, Universidad Autónoma Metropolitana, Azcapotzalco Campus. See *Comparative Study of the Genesis, Evolution and Present Situation of the Academic Body in Mexico* (Mexico City: Reportes de Investigación, Universidad Autónoma Metropolitana, Azcapotzalco, 1991 and 1992). In this project, twelve research teams belonging to different Mexican institutions participated. The final report is in *Los Rasgos de la Diversidad: Un Estudio sobre los Académicos Mexicanos* (Mexico City: Universidad Autónoma Metropolitana, Unidad Azcapotzalco, 1994).
4. Manuel Gil Antón, Adrian de Garay Sanchez, Rocío Grediaga Kuri, Lilia Pérez Franco, Miguel Angel Casillas Alvarado, and Norma Rondero López, *Académicos: Un Botón de Muestra* (Mexico City: Universidad Autónoma Metropolitana, Unidad Azcapotzalco, 1992).
5. Ibid.
6. Olac Fuentes Molinar, "La Educación Superior en México y los Escenarios de su Desarrollo Futuro," *Universidad Futura* 3 (1989): 3.

7. Walter Metzger, "The Academic Profession in the United States," in *Academic Profession: National, Disciplinary, and Institutional Setting*, ed. Burton Clark (Berkeley, CA: University of California Press, 1987), 123–208.

8. Fuentes Molinar, "La Educación Superior," 3.

9. Ibid.

10. Manuel Gil Antón, "Los Académicos y la Reforma Universitaria: Tres Porpuestas a Discusión," *El Cotidiano* 29 (1989): ii–vi.

11. Burton Clark, *The Academic Life: Small Worlds, Different Worlds* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1990).

12. See *A Classification of Institutions of Higher Education* (Berkeley, CA: The Carnegie Foundation for the Advancement of Teaching, 1976) and the 1994 ed.

13. In the study, a sample of 3,764 professors working for twenty-four Mexican institutions was used (see note 3). For the Carnegie international study, the sample consisted of 1,027 academics from twenty institutions.

14. According to established criteria, we classified Mexican higher education institutions as either one of two large groups and proceeded to make a random selection. In each group, we selected one institution for every 5 percent fraction of the set of posts the groups contained. The first, with 29.54 percent of the posts, led to the selection of six institutions; the second, with 71.46 percent, led to the selection of fourteen, for a total of twenty. The institutions selected in the first group were: Universidad Nacional Autónoma de México, Universidad Autónoma Metropolitana, Instituto Politécnico Nacional, Colegio de México, Universidad Iberoamericana, and Universidad Pedagógica Nacional. The institutions selected in the second group were: Instituto Tecnológico y de Estudios Superiores de Monterrey, Universidad Autónoma de Baja California Sur, Universidad de Sonora, Universidad Autónoma de Nuevo León, Universidad Autónoma de Hidalgo, Universidad Autónoma de Aguascalientes, Universidad Autónoma de Yucatán, Universidad Autónoma de Coahuila, Universidad Autónoma de Tabasco, Universidad Veracruzana, Instituto Tecnológico de La Paz, Instituto Tecnológico de Pachuca, Instituto Tecnológico de Aguascalientes, and Instituto Tecnológico de Estudios Superiores de Occidente.

    Once these institutions were selected, we obtained the most updated lists of academic personnel for each one, and the respondents were selected at random. Of the 1,200 questionnaires that were delivered, 1,027 were returned. Each of the selected academics was contacted by an interviewer previously trained to explain the objective of the survey and capable of fielding questions that might come up in answering the instrument.

15. Liliana Morales Hernandez, "La Mujer en la Educación Superior en México," *Universidad Futura* 1 (1989): 68–77.

United States

1. A two-stage random sampling procedure was used to create the list of faculty to be sent the mailed questionnaire. The universe of colleges and universities consisted of all those accredited institutions offering baccalaureate or higher degrees. In keeping with the standard procedures to be used for the international survey in other participating countries, we identified two categories of institutions: (1) "top-tier, research" institutions and (2) all other eligible colleges and universities. The list of institutions and designations was drawn from the 1987 *Classification of Institutions of Higher Education*, published by The Carnegie Foundation for the Advancement of Teaching. For sampling purposes, all universities designated as "Research I" in that publication were included in the "top-tier, research" category and all the remaining colleges and universities were placed in the second or "other" category.

To reduce the impact of the survey responses from any one college or university on the overall findings, a total of forty institutions were randomly selected after applying the stratification procedure noted above. Twelve institutions were selected from within the "research" category and twenty-eight from the "other" category. Those numbers represent one institution for each 2.5 percent of faculty at all the eligible institutions in the country.

In the second stage, academics were randomly selected from each college or university in the institutional sample. Each institution provided an up-to-date list of all personnel holding faculty rank. Using a random start, every fifth name was drawn for the sample. The sample size was 7,588. Each individual received a twelve-page questionnaire and a cover letter. Four weeks later and again at nine weeks nonrespondents were sent follow-up letters and questionnaires. The return rate was 46.5 percent. A weighting procedure was applied so that the returns for each stratum have the same weight in the universe of completed questionnaires as in the universe from which the sample was drawn.

England

1. For mainly technical reasons, the survey reported here covers England only. However, most of the trends discussed in the introductory section are common to the United Kingdom as a whole.
2. For a fuller description of aspects of these changes, see O. Fulton, "Slouching Towards a Mass System: Society, Government and Institutions in the U.K.," *Higher Education* 21, no. 4 (1991): 589–605; and O. Fulton, "Differentiation and Diversity in a Newly Unitary System: The Case of the United Kingdom," in *The Mockers and Mocked: Comparative Perspectives on Differentiation, Convergence and Diversity in Higher Education*, ed. V. L. Meek, L.C.J. Goedegebuure, O. Kivinen, and R. Rinne (Oxford: Pergamon, 1996).
3. There are few universities that have grown by less than 50 percent in the last decade; many of the former polytechnics have experienced enrollment increases of 200 percent or even more since the early 1980s.
4. The term "old universities" now refers to *all* those universities that existed prior to 1992. Those institutions that were reclassified following the Further and Higher Education Act of that year are now referred to, rather confusingly, as the "new universities," a term previously used for the ten institutions that were founded as universities in the 1960s.
5. Before the relevant legislative change in 1988, university staff contracts contained a virtually unconditional guarantee of employment until retirement age. The main de facto effect of the change (which is gradually taking place as contracts are amended through promotion or new appointments) has been that staff may now be dismissed because of redundancy (e.g., if their university decides to close or reduce in size their department or teaching program). Rights of "academic freedom" are protected by the legislation, albeit only after amendment by government opponents in the House of Lords. But the symbolic loss of tenure—which has indeed been followed by redundancy in a very small number of cases—coupled with government intrusion into the employment policies of nominally autonomous institutions, has been much noticed. The polytechnics, now the new universities, have never given tenure to their staff. See Fulton, "Slouching."
6. See A. H. Halsey, *Decline of Donnish Dominion: The British Academic Professions in the Twentieth Century* (Oxford: Clarendon Press, 1992). It is many years since academic salaries were pegged to those of British civil servants; more recently, school teachers have been the recipients of

noticeably more generous national pay settlements than have university and polytechnic staff.

7. See Fulton, "Slouching"; and M. Trow, "Problems in the Transition from Elite to Mass Higher Education," in *Policies for Higher Education*, Organisation for Economic Co-operation and Development (OECD) (Paris: OECD, 1974), 52–101.

8. Despite their acquisition of a common status, the old and new universities at present retain two separate pay scales and career structures. The expectation (and government intention) is not that the scales will be merged but that each institution will develop its own pay levels and possibly even its own structure.

9. Britain, perhaps characteristically, claims to have invented "binary" systems—ignoring the California Master Plan, similar arrangements in other American states, and virtually simultaneous developments in other European countries.

10. See Fulton, "Slouching."

11. Although it was possible for polytechnic students to obtain higher degrees up to and including the doctorate through the CNAA, the numbers doing so were very small compared with those obtaining university Ph.Ds. And although the output of polytechnic graduates and their successors now nearly rivals that from universities, this is a comparatively recent development. For whatever reasons, Halsey reports that in 1989 only 14 percent of the polytechnic staff he surveyed held even a first degree from a polytechnic. See Halsey, *Decline of Donnish Dominion*, table 6.5, 141.

12. At this point they abandoned the label of "public sector" institutions by which they had come to be known in distinction from the "autonomous" universities.

13. Separate funding councils were set up for England, Scotland, and Wales.

14. The remaining CHEs were placed under the remit of the same funding councils, but were not given degree-awarding powers.

15. Core research funding was historically provided to all (old) universities for two purposes: to sustain the infrastructure necessary for research (libraries, laboratories, computing, etc.); and, particularly, to pay for a proportion of the time of every academic staff member.

16. The full range of institutions has been simplified for present purposes.

17. Department for Education (DFE), *Higher Education Statistics for the United Kingdom* (London: HMSO, 1993).

18. However, more detailed data used for sampling purposes for this survey produced a smaller and more realistic figure for England of 50,000–60,000 persons (27,000 university, 23,000 FTE polytechnic and college) by attempting to exclude both fixed- (i.e., short-) term contract research staff in the universities and those polytechnic and college staff whose teaching is largely or exclusively below degree level: for details see appendix B.

19. Charts and some figures are given in Halsey, *Decline of Donnish Dominion.*

20. G. Williams, T. Blackstone, and D. Metcalf, *The Academic Labor Market: Economic and Social Aspects of a Profession* (Amsterdam: Elsevier, 1974).

21. The doctorate has only recently become a de facto expectation for most applicants for university lectureships; there is no de jure requirement (see table 10.8).

22. Department of Education and Science/Universities Statistical Record, *University Statistics: Staff* (annual publication to 1992).

23. DFE, *Higher Education Statistics,* 1993.

24. The period of training in the United Kingdom can be relatively short: although the opportunity to obtain a lectureship with only a B.A. degree is now very rare, it is perfectly possible, indeed expected, to acquire a doctorate in three years in the natural sciences and in four in the arts, and to enter the profession immediately thereafter. New academics can be as young as twenty-four or twenty-five years of age.

25. In reporting the survey, I use the old names of the sectors, as appropriate to summer 1992.

26. See note 14.

27. Until recently, the numbers in these senior grades were restricted, as part of the national salary agreements, to a fixed proportion (35 percent) of all tenured staff across each university as a whole. This restriction has now been abolished.

28. *Lecturer,* as the table shows, still exists as a grade, but this is a residue of the common pay and grading scales that used to apply across public-sector higher and "further" (i.e., predegree) education. The title of *senior lecturer* indicated that a staff member was mainly employed on degree-level work, and *lecturers* in polytechnics and colleges are now either junior appointments or people who teach mainly outside the degree-level structures of "higher" education. The sample was drawn so as to exclude the latter category as far as possible.

29. The survey deliberately undersampled the total number of research staff working in higher education: it aimed to include only those researchers with relatively long-term or permanent appointments.

30. *Reader* is a grade reserved for those with special research achievements. *Professor* denotes research distinction: possibly also other achievements, but research is essential. Universities are under pressure to award senior lectureships on a range of possible criteria, including teaching excellence as an alternative to research excellence; however there is little doubt that research achievement is still the most straightforward route to promotion.

31. The public-sector salary agreements, under which polytechnics and colleges operated, laid down a pyramidal staff structure with strictly prescribed proportions of posts at each level for each unit. In fact, polytechnics and colleges have only recently begun awarding the titles of *professor* and *reader*. *Reader* is generally an honorific title for research achievement but with no administrative responsibility—or salary increase—attached. In some institutions professorships are awarded for research only; in others the title is given to holders of administrative posts and a research record is not required.

32. See also table 10.24.

33. The salary intervals are a consequence of the international survey's use of U.S. dollars as the standard.

34. See Halsey, *Decline of Donnish Dominion*, 216–34.

35. The last figure is the least surprising, since for some years now government regulations have required all those academic staff who train school teachers to have "recent and relevant" school teaching experience themselves.

36. As in other countries, the questionnaire made it clear that "teaching" included seminars and tutorials, office hours, and preparation time, as well as formal lectures, but not teaching-related administration.

37. As in many other countries, respondents were invited to add personal comments at the back of the questionnaire. A surprisingly high proportion did so.

38. Most universities' undergraduate terms amount to thirty weeks per year, though postgraduate teaching may well be year-round and there is always course preparation, marking, and examining.

39. Further responses to the questionnaire revealed that while most staff were aware of the availability within their institution of training for teaching,

far fewer knew of any research training—and neither kind was particularly highly rated by those who were aware of it.

40. The tables are not shown.

41. However, there was a higher than normal level of nonresponse to this question: in both the polytechnics and the colleges, approximately three-fifths of all those surveyed gave a positive answer—still an impressively high proportion.

42. A. H. Halsey and M. Trow, *The British Academics* (London: Faber, 1970).

43. The doubts consist of labeling students only "fair"; very few staff in any category call them "poor."

44. See O. Fulton and S. Ellwood, "Admissions, Access and Institutional Change," in *Access and Institutional Change*, ed. O. Fulton (Buckingham, England: Open University Press, 1989).

Germany

1. For more detailed information, see Christoph Führ, *Schools and Institutions of Higher Education in the Federal Republic of Germany* (Bonn: Inter Nationes, 1989); Hansgert Peisert and Gerhild Framhein, *Higher Education in the Federal Republic of Germany* (Bucharest: CEPES-UNESCO, 1990); Barbara M. Kehm and Ulrich Teichler, "Germany, Federal Republic of," in *The Encyclopedia of Higher Education*, ed. Burton R. Clark and Guy R. Neave (Oxford: Pergamon Press, 1992), 1:240–60; Ulrich Teichler, "Quantity and Quality of Staff in Higher Education," *Higher Education Policy* 7, no. 2 (1994): 19–23.

2. For a discussion of the sociological concept and implications of "profession" and "professionalization" as regards senior and junior staff in German higher education, see Jürgen Enders, "'Akademische Profession' und Nachwuchsförderung," *Beiträge zur Hochschulforschung* 2 (1994): 227–42.

3. For an overview and further information on the employment conditions of junior staff and staff in middle-rank positions at German universities, see Jürgen Enders, *Beschäftigungssituation im akademischen Mittelbau* (Kassel: Werkstattberichte des Wissenschaftlichen Zentrums für Berufs- und Hochschulforschung, no. 26, 1990).

4. The findings of this survey on the situaton of *Doktoranden* (doctoral candidates) employed at universities are discussed in Jürgen Enders and Ulrich Teichler, "Doctoral Staff in German Higher Education: Selected

Findings from the German Survey on the Academic Profession," *Higher Education Policy* 7, no. 1 (1994): 31–36.

5. Bundesministerium für Bildung und Wissenschaft, ed., *Grund und Strukturdaten 1993* (Bonn: Bock Verlag, 1993).

6. The low response rate cannot be attributed to the length of the questionnaire, for another survey on the academic profession conducted by another German research institute at the same time also yielded a response rate of only 28 percent, although the questionnaire was little more than half as long. See Botho von Kopp and Manfred Weiss, "Deutsche Professoren: Zufrieden und produktiv trotz Überlast?" *Zeitschrift für Bildungsverwaltung* 8, no. 1 (1993): 23–29.

7. The response rate was only 17 percent in medicine.

8. The authors would like to thank the Federal Ministry of Education and Science in Germany for their financial support of the German survey.

9. For further information on the German survey findings, see Jürgen Enders and Ulrich Teichler, *Berufsbild der Lehrenden und Forschenden an Hochschulen. Ergebnisse einer Befragung des wissenschaftlichen Personals an westdeutschen Hochschulen* (Bonn: Bundesministerium für Bildung und Wissenschaft, Forschung und Technologie, 1995). A preliminary overview of the German survey findings from a comparative perspective is provided in Jürgen Enders and Ulrich Teichler, *Der Hochschullehrerberuf im internationalen Vergleich. Ergebnisse einer Befragung über die wissenschaftliche Profession in 13 Ländern* (Bonn: Bundesministerium fur Bildung und Wissenschaft, Forschung und Technologie, 1995). For a comprehensive overview of various surveys on the academic profession in Germany, see *Der Hochschullehrerberuf. Aktuelle Studien und ihre hochschulpolitische Diskussion*, ed. Jürgen Enders and Ulrich Teichler (Neuwied: Luchterhand Verlag, 1995).

10. The academic year, divided into two semesters, comprises twenty-eight weeks for the lecture period at universities and thirty-six weeks at *Fachhochschulen*.

11. See Infratest Sozialforschung, "Befragung des wissenschaftlichen Personals der Hochschulen zur Fortentwicklung von Lehre und Forschung," WS 1976/77, München 1977, mimeographed; Institut für Demoskopie, Zur Lage der Forschung an deutschen Universitäten 1977–1984, Allensbach, 1984, mimeographed; Uwe Schimank, *Forschungsbedingungen der Professoren an den westdeutschen Hochschulen* (Cologne: Max-Planck-Institut für Gesellschaftsforschung, Discussion Paper 2, 1992).

12. Alvin W. Gouldner, "Locals and Cosmopolitans: Towards an Analysis of Latent Social Roles," *Administrative Science Quarterly* 2 (1957): 444–80.
13. Burton R. Clark, *The Academic Life: Small Worlds, Different Worlds* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1987).

The Netherlands

1. B. R. Clark and G. R. Neave, eds., *The Encyclopedia of Higher Education* (Oxford: Pergamon Press, 1992).
2. G. Rhoades, "Governance: Models," in *The Encyclopedia of Higher Education*, ed. Clark and Neave, 1376–84.
3. G. R. Neave and G. Rhoades, "The Academic Estate in Western Europe," in *The Academic Profession: National, Disciplinary, and Institutional Settings*, ed. B. R. Clark (Berkeley: University of California Press, 1987), 211–70.
4. D. Light, "Introduction: The Structure of the Academic Professions," *Sociology of Education* 47 (1974): 2–28.
5. T. Becher, *Academic Tribes and Territories: Intellectual Enquiry and the Cultures of Disciplines* (Milton Keynes, UK: Society for Research into Higher Education/Open University Press, 1989).
6. For more detailed information, see: P.A.M. Maassen and F. A. van Vught, eds., *Dutch Higher Education in Transition: Policy Issues in Higher Education in the Netherlands* (Culemborg: LEMMA, 1989); P.A.M. Maassen, L.C.J. Goedegebuure, and D. F. Westerheijden, "Social and Political Conditions for the Emerging Tertiary Structures in the Netherlands," in *Higher Education in Europe*, ed. C. Gellert (London: Jessica Kingsley, 1993), 135–52; L.C.J. Goedegebuure, F. Kaiser, P.A.M. Maassen, and E. de Weert, "Higher Education Policy in the Netherlands," in *Higher Education Policy: An International Comparative Perspective*, ed. L.C.J. Goedegebuure, F. Kaiser, P.A.M. Maassen, L. Meek, F. A. van Vught, and E. de Weert (Oxford: Pergamon Press, 1994), 188–214.
7. Dutch institutions for higher vocational education can be compared to the former polytechnics in the United Kingdom or the German *Fachhochschulen*. In Dutch they are referred to as *hogescholen*, while for the sector as a whole the term *hoger-beroepsonderwijs* (*HBO*) is used. Contrary to the chapters in this volume on Germany and England, in

this chapter the higher vocational education sector is not included. For more information on the *HBO* sector, see L.C.J. Goedegebuure, *Mergers in Higher Education: A Comparative Perspective* (Utrecht: LEMMA, 1992).

8. See P.A.M. Maassen and F. A. van Vught, "An Intriguing Janus-head: The Two Faces of the New Governmental Strategy for Higher Education in the Netherlands," *European Journal of Education* 23 (1988): 65–77; Maassen and van Vught, eds., *Dutch Higher Education in Transition;* Goedegebuure, et al., "Higher Education Policy."
9. U. Teichler, "Government and Curriculum Innovation in the Netherlands," in *Government Strategies and Innovation in Higher Education*, ed. F. A. van Vught (London: Jessica Kingsley, 1989), 168–212.
10. B. R. Clark, *The Higher Education System: Academic Organization in Cross-National Perspective* (Berkeley: University of California Press, 1983); J. Enders, *The German Professoriate* (paper presented at the eighth World Congress of Comparative Education, Prague, July 1992).
11. For an analysis of the introduction of this new structure, see R. J. Bijleveld, "The Two-Tier Structure in University Education: An Evaluation of a Major Restructuring Operation," in *Dutch Higher Education in Transition*, ed. Maassen and van Vught, 31–47.
12. "Regular academic staff positions" refers to the regularly funded, fixed number of full, associate, and assistant professor positions in a department.
13. Maassen, et al., "Social and Political Conditions."
14. See V. Timmerhuis and H. Vermeulen, *Arbeidsmobiliteit van wetenschappelijk personeel* (Tilburg: IVA, 1993).
15. Bijleveld, "Two-Tier Structure."
16. Goedegebuure, et al., "Higher Education Policy."
17. Dutch Ministry of Education and Science, *Internationalisering van Onderwijs en Onderzoek* Beleidsnotitie, Tweede Kamer, vergaderjaar 1987–1988.
18. Maassen and van Vught, eds., *Dutch Higher Education in Transition.*

Sweden

1. Peter Scott, *Higher Education in Sweden: A Look from the Outside* (Stockholm: UHÄ, 1991).

2. Bo Lindensjö, *Högskolereformen: En studie i offentlig reformstrategi* (Reform of higher education in 1977: A study of the strategy of public reforms) (Stockholm: Stockholm Studies in Politics, 1981).
3. Most of the faculty in the survey will retire at the age of 65.
4. Rune Premfors, *Svensk forskningspolitik* (Swedish research policy) (Lund: Studentlitteratur, 1986).
5. Thorsten Nybom, "Den nya forskningspolitiken: Forskningsråden växer fram, 1942–1959" (The new research policy: The emergence of the research councils, 1942–1959) (Uppsala: Uppsala University, Department of History, 1985).
6. *Högskolan: Den statliga högskolans personal 1992* (Swedish higher education: Composition of staff 1992) (Stockholm: Statistiska meddelanden, 1992), 10.

Russia

1. Colleges (*kolledzhy*) grew out of the more enterprising and specialized of the technical secondary institutions. They offer programs that extend three years beyond general secondary education. Most colleges have articulation agreements with allied polytechnics, institutes, or academies for the transfer of their graduates into the third year of the *diplom* program. Examples of these programs are in forest products technology, radio-electronic technology, and naval and shipbuilding technologies.
2. For an example of this criticism, see Oleg Moraz, "Dissertation . . . for what?" *Literaturnaia Gazeta*, 5 Feb. 1986, 10. For a synopsis of the new doctorate program regulations, see Alexander Prokhorov, "The Restructuring of Higher Education in the USSR," *Higher Education Policy* 1, no. 1 (March 1988): 46.
3. Alexander Savelyev, *Vysshoe Obrazovanie v Rossii: Sostoyania i problemi razvetia* (Russian higher education: Conditions and problems of development), (Moscow: Higher Education Research Institute, 1994).
4. Ibid.
5. George Avis, "Access to Higher Education in the Soviet Union," in *Soviet Education in the 1980s*, ed. J. J. Tomiak (New York: St. Martin's, 1983), 201.
6. *Vysshoe Obrazovanie v Rossii.*
7. Ibid.

8. This response needs to be considered in light of the fact that the survey population contained a much higher percentage of research degree holders than the general faculty population. Holders of the candidate degree and doctorate would, of course, consider themselves rather well prepared for research.
9. *Vysshoe Obrazovanie v Rossii.*

Israel

1. Joseph Ben-David, "Universities in Israel: Dilemmas of Growth, Diversification and Administration," *Studies in Higher Education* 11, no. 2 (1986): 105–30.
2. Ibid.
3. Council of Higher Education (CHE), *The Planning and Grants Committee: Annual Report,* no. 18 (Jerusalem: CHE, 1992).
4. Ministry of Education and Culture, *Facts and Figures about Education and Culture in Israel* (Jerusalem: Publications Department, Ministry of Education and Culture, 1992), table f, p. 5.
5. Ibid., table 22, p. 38.
6. Y. A. Shenhav, "An Organizational Perspective to Stratification: Women in the Israeli Professoriate" (in Hebrew), *Megamot* 34, no. 1 (1991): 77–103.
7. Central Bureau of Statistics, *Labor Force, Main Characteristics: Economic Branch and Occupations, Data from the Sample Enumeration* (in Hebrew) (Jerusalem: Central Bureau of Statistics, 1992), table 20.
8. Ibid.
9. "The Future Colleges," *Ha'aretz* (in Hebrew), Nov. 28, 1993.
10. Shenhav, "Organizational Perspective," 77–103.
11. In reporting the main findings of the survey, attention is given to the respondents' answers to issues related to present-day problems of the faculty. Background variables such as gender, fields of study, rank, terms of employment, etc. are considered as explanatory of variables such as working conditions, engagement in teaching, research, service and administration, and social and educational perspectives. Most of the findings are directly reported as frequencies, percentages, and means. A number of variables were further analyzed by various methods of multivariate analysis. Two scales have been constructed according to the responses to several items. One is a measure of job satisfaction; the other

is a measure of commitment to respondents' main place of work. An overall synthesis of the findings is attempted by a factor analysis, which aims at presenting a comprehensive view of the main features of the Israeli data.

12. Ernest L. Boyer, Philip G. Altbach, and Mary Jean Whitelaw, *The Academic Profession: An International Perspective* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1994).
13. Central Bureau of Statistics, *The 1992 Yearbook* (in Hebrew) (Jerusalem: Central Bureau of Statistics, 1992).
14. Boyer et al., *Academic Profession.*
15. Ibid.
16. M. F. Fox, "Research, Teaching and Publication Productivity: Mutuality versus Competition in Academia," *Sociology of Education* 65, no. 4 (1992): 293–305.
17. Ernest L. Boyer, *Scholarship Reconsidered: Priorities of the Professoriate* (Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1990), 13.
18. Boyer et al., *Academic Profession.*
19. Boyer, *Scholarship Reconsidered.*
20. O. Fulton and M. Trow, "Research Activity in American Higher Education," *Sociology of Education* 47, no. 1 (1974): 29–37.
21. V. Kraus and J. E. Hofman, *Promises in the Promised Land: Mobility and Inequality in Israel* (Westport, CT: Greenwood Press, 1990).
22. Ben-David, "Universities in Israel."
23. N. Zach, "The Real Decline of the Salary of the Academic Profession," (in Hebrew) *Hadashot*, Jan. 7, 1993.
24. Ministry of Education and Culture, *Facts and Figures.*
25. Boyer et al., *Academic Profession.*
26. Ben-David, "Universities in Israel."

CONTRIBUTORS

Philip G. Altbach is professor of higher education in the School of Education and director of the Center for International Higher Education, Boston College. He is also senior associate of The Carnegie Foundation for the Advancement of Teaching. He has written widely on the academic profession and is editor of *Comparative Perspectives on the Academic Professor*. He is author of *The Knowledge Context, Higher Education in the Third World,* and other books.

Akira Arimoto is professor of higher education and director of the Research Institute for Higher Education, Hiroshima University, Japan. He is the author of *Daigaku no Shakaigaku* (Sociology of academics), *Gakusha no Sekai* (World of scholars), and other books. He is an editor of the *Journal of Educational Sociology.*

Elizabeth Balbachevsky is assistant professor of political science and a researcher at the Research Center on Higher Education (NUPES), University of São Paulo, Brazil. Her research area is in the field of higher education, and she is currently examining the role of private higher education in Brazil.

Göran Blomqvist is on the staff of the Department of History, University of Lund, Sweden. He is the author of *Ivory Tower or Ship of State?*

Michael Chen is professor of education at Tel Aviv University and served as the university's dean of the School of Education between 1986 and 1990. He specializes in educational evaluation and analysis. He has served on the Prime Minister's Commission on Disadvantaged Youth and other official bodies. His work has been widely published in Israeli journals and has also appeared in the *American Educational Research Journal* and other international publications.

Jürgen Enders is a researcher at the Center for Research on Higher Education and Work, Comprehensive University of Kassel, Germany. He has written extensively on higher education and has contributed articles to such journals as *Higher Education Policy* and *Higher Education Management*, as well as numerous German publications.

Oliver Fulton is professor of higher education at Lancaster University, England, where he is also affiliated with the Center for the Study of Education and Training. His research focuses on the sociology of the academic profession, policy issues, and related concerns.

Peter A. Geurts is lecturer in methodology of the social sciences in the Department of Public Administration and Policy, University of Twente, Enschede, Netherlands. Among his recent publications is *The Social Impact of Occupational Prestige*.

Manuel Gil Antón is head of higher education studies, Department of Sociology, Universidad Autónoma Metropolitana, Unidad Azcapotzalco, Mexico City, Mexico. He is coauthor of *Académicos: Un Botón de Muestra* and *Los Rasgos de la Diversidad: Un Estudio sobre los Académicos Mexicanos*.

Esther E. Gottlieb is currently director of Program Development, Humanities and Social Sciences in the Office of Research and Economic Development, West Virginia University. Prior to 1993 she was senior lecturer at State Teachers College—Seminar Hakibbutzim, in Tel Aviv, Israel. Her research in comparative and international education has focused on discursive practices. Among her publications are *Education and Social Change in Korea* (with Don Adams) and "Mapping the Utopia of Professionalism: The Carnegie International Survey of the Academic Profession," in *Social Cartography*.

J. Eugene Haas is president of Human Ecology Research Services, Inc. He was a senior fellow at The Carnegie Foundation for the Advancement of Teaching from 1989 to 1993, and has served as a professor of sociology at the University of Colorado. Among his books are *Complex Organizations* and *An Assessment of Research on Natural Hazards.*

Hans Jalling is secretary and chief executive officer of the Council for the Renewal of Undergraduate Education in Sweden. He has been national director of the Faculty Development Program, Swedish National Board of Universities and Colleges, and he has taught at the University of Stockholm.

Sungho H. Lee is a professor in the School of Education, Yonsei University, Seoul, Korea, where he has also served as dean of student affairs. He is a former assistant minister for higher education in the Government of the Republic of Korea, and served as vice chairman of the Presidential Commission on the 21st Century. He has published widely on Korean higher education and on curriculum issues. Among his books is *Conflict in Korean Higher Education.*

Brian Levin-Stankevich is vice provost for Student Affairs and Enrollment Management at Eastern Washington University. He is a historian and has published on Russian legal history and international education.

Lionel S. Lewis is professor and former chair of Sociology at the State University of New York at Buffalo. His books include *Scaling the Ivory Tower* (1975), *Cold War on Campus* (1988), *The Cold War and Academic Governance* (1993), and *Marginal Worth: Teaching and the Academic Labor Market* (1996).

Karsten Lundeqvist is head of staff development in the Office of the Governor, Stockholm, Sweden. He was formerly senior researcher at the Union of University Teachers of Sweden, and a project director at the Swedish National Statistical Office. He holds a doctorate in economic history.

Peter A. M. Maassen is the acting director of the Center for Higher Education Policy Studies (CHEPS), University of Twente, the Netherlands, and the executive secretary of the Consortium of Higher Education Researchers (CHER).

Gerard A. Postiglione is an associate professor, Department of Education, University of Hong Kong. His books include *Asian Higher Education* (1997), *Hong Kong's Renuion with China* (1997) *Social Change and Educational Development: Mainland China, Taiwan, and Hong Kong* (1995), and *Education and Society in Hong Kong* (1991). He edits a book series on the subject of Hong Kong for M. E. Sharpe Publishers.

Alexander Savelyev is director of the Research Institute on Higher Education and the National Center of New Information Technologies, Moscow, Russia. He is president of the Association of Researchers in Higher Education. A member of several scientific academies in Russia, he is author of more than two hundred publications, including *Higher Education in the USSR.*

Ernesto Schiefelbein is director of the UNESCO Center for Education in Latin America and the Caribbean, Santiago, Chile. He served as minister of education in Chile, 1993–94. He has a doctorate in education from Harvard University, has worked for the World Bank in Washington, D.C., and as the coordinator of the Red Latinoamericana de Documentation en Educacion (REDUC). Among his publications are *Eight Years of Their Lives* and *The State of Education in Latin America, 1980–1989.*

Simon Schwartzman is professor of political science and scientific director of the Research Center on Higher Education (NUPES), University of São Paulo, Brazil. Since May 1994 he has been president of Brazil's National Institute for Geography and Statistics. His books include *A Space for Science: The Development of the Scientific Community in Brazil.*

Barry A. Sheehan is deputy vice chancellor (resources) and professor of education at the University of Melbourne, Australia. He has been director of the Melbourne College of Advanced Education. His research and publications have chiefly been in the area of comparative and international education.

Ulrich Teichler is professor and director of the Center for Research on Higher Education and Work, Comprehensive University of Kassel, Germany. He is also chairperson of the Consortium of Higher Education Researchers. He has published more than twenty books on such topics as higher education systems in comparative perspective, higher education and the world of work, academic mobility, and international cooperation in higher education.

Frans A. van Vught is Rector Magnificus of the University of Twente. Previously he was professor of Public Administration and Public Policy, University of Twente; Director of the Center for Higher Education Policy Studies (CHEPS); and Director of the Netherlands Institute of Government (NIG). He has published extensively on policy analysis and higher education.

Anthony R. Welch is on the faculty of the School of Social and Policy Studies in Education in the Faculty of Education at the University of Sydney. He specializes in studies of international educational policy and practice, from sociological and comparative perspectives. Among his books are *Contemporary Perspectives in Comparative Education; Knowledge, Culture and Power: International Perspectives on Literacy Policies and Practices;* and *Australian Education: Crisis or Reform?*

Ruth Yakir teaches at State Teachers College—Seminar Hakibbutzim, Tel Aviv, Israel, where she is also director of the Segal Institute of Educational Research and Development and heads the Department of Educational Administration. Her research interests include teacher-role orientations and school administration.

INDEX

INDEX

academic freedom, 30–32
  Brazil, 275–77
  Chile, 293
  Germany, 443, 465, 468
  Hong Kong, 191, 194, 217, 218, 222
  Israel, 662
  Japan, 161, 175
  Korea, 138, 139
  Mexico, 337–38
  Russia, 607–8, 609
  Sweden, 550–52
administration. *See* Governance
admissions standards, 42, 43
  Australia, 84, 89
  Brazil, 277
  England, 432–33, 434
  Germany, 439–40
  Hong Kong, 216–17, 222
  Israel, 660
  Korea, 100, 144
  Netherlands, 494
  Russia, 574–75, 576
  Sweden, 531–32
affirmative action, 43
age, 9
  Australia, 68
  Chile, 303
  England, 400, 408–10
  Hong Kong, 198
  Israel, 621, 629, 630
  Japan, 155–56
  Korea, 103
  Mexico, 321
  Netherlands, 503–5, 522, 523, 524
  Russia, 578
  Sweden, 540
Australia, 51–94
  admissions standards, 89
  age, 68
  background, 52–60
  benefits, 80–82
  evaluation, 72
  facilities, 94
  funding, 77–80
  gender, 62, 68–70, 77–78, 87–88
  governance, 82–85
  government, 56, 72–73
  highest degree, 61–62, 71, 86
  income, 59, 77–80
  internationalism, 85–89
  job satisfaction, 67–68
  morale, 65–66
  outside work, 66–67
  preparation for academia, 71–72
  priorities for higher education, 71, 92–93
  publications, 73–80
  rank, 59–60, 88–89
  research, 70–72
  research funding, 58, 78–80
  structure, 52, 53–54
  students, 54–55, 89–91, 92
  survey, 52, 62–65
  teaching, 72
  tenure, 60–61, 63
  unions, 59

benefits
  Australia, 80–82
  Brazil, 246, 249
  Germany, 450
  Hong Kong, 203–4
  Israel, 638–39
  Japan, 158, 184, 185
  Korea, 110–12
  Netherlands, 508
  Russia, 603
  United States, 348, 349
Brazil, 231–79
  academic freedom, 275–77
  admissions standards, 277
  background, 233–37
  benefits, 246, 249
  commitment to discipline, 267–71
  educational reform, 234–35, 264, 266
  gender, 242–44
  global issues, 272, 277
  governance, 263–67, 268–69
  highest degree, 238
  income, 238, 244–46
  job mobility, 248
  job security, 246–48
  outside work, 265
  priorities for higher education, 252, 273
  professional activities, 263–67
  publications, 257
  research, 257–60
  service, 260–63, 265
  social mobility, 240–42, 243, 265
  society, 272
  status and role of higher education, 247, 274
  students, 252, 254, 257, 258
  teaching, 250–57
  tenure, 238
  unions, 59
  working conditions, 248–50, 251
budgeting. *See* Governance

career satisfaction. *See* Job satisfaction
Chile, 281–306
  academic freedom, 293
  age, 303
  background, 281–85, 297–98
  class size, 289, 290
  commitment to discipline, 287
  educational reform, 282, 297–98
  evaluation, 289
  facilities, 298
  gender, 298–300
  governance, 294, 298
  highest degree, 286–87
  income, 287
  internationalism, 295–96, 305
  job satisfaction, 287
  military regime, 296–97
  morale, 286
  outside work, 303
  preparation for academia, 300–301
  priorities for higher education, 294
  publications, 288, 289–90
  research, 289–92
  research funding, 291–92
  service, 292–93
  society, 294–95
  status and role, 294
  students, 289
  teaching, 288–89
  workload, 287–88
class size
  Chile, 289, 290
  Germany, 474–75
  Korea, 120, 121
  Mexico, 330

  Russia, 581–83
  Sweden, 544–45
curriculum
  Australia, 84–85
  Korea, 100

degree programs
  Australia, 54
  Hong Kong, 192
  Israel, 617–18, 643–46, 662
  Korea, 101–2
  Russia, 571–74
discipline, commitment to
  Brazil, 267–71
  Chile, 287
  England, 417–18, 435
  Germany, 484–86
  Hong Kong, 205–6
  Israel, 637–38
  Japan, 156, 160–61
  Korea, 107

educational reform
  Brazil, 234–35, 264, 266
  Chile, 282, 297–98
  Japan, 186
  Russia, 569–70
England, 391–437
  age, 400, 408–10
  disciplines, 403, 417–18
  evaluation, 422–26
  facilities, 419–21
  gender, 401–3, 408–10
  governance, 392, 415, 421–22, 429, 430–31
  government, 392
  highest degree, 410–13
  income, 392, 406–8
  job satisfaction, 419
  morale, 435
  preparation for academia, 424–25
  publications, 426, 427
  service, 415
  structure, 391–92, 394–98
  students, 429–33
  teaching, 413–19, 426–27, 436
  tenure, 392
  work experience, 413
  workload, 413–19
English as language of scholarship, 3, 40–41
evaluation, 32–36
  Australia, 72
  Chile, 289
  England, 422–26
  Hong Kong, 207–9
  Japan, 166–67, 186–87
  Korea, 122–25
  Mexico, 315, 332
  Russia, 589, 590, 601
  Sweden, 552–54
  United States, 358
external earnings. *See* Outside work

facilities, 13
  Australia, 94
  Chile, 298
  England, 419–21
  Hong Kong, 200
  Japan, 170
  Korea, 113, 117, 129–31
  Netherlands, 508–10
  Russia, 587, 590–92
  United States, 348, 349
fiscal constraint, 7
funding
  Australia, 77–80
  Hong Kong, 193

gender, 9, 14, 21
  Australia, 62, 68–70, 77–78, 87–88

gender *(Continued)*
  Brazil, 242–44
  Chile, 298–300
  England, 401–3, 408–10
  Hong Kong, 198
  Israel, 619, 621, 625, 627, 632, 636
  Japan, 154–55
  Korea, 103
  Mexico, 321
  Netherlands, 499–501, 504, 520–23, 524, 528
  Russia, 577–78
  Sweden, 538–40
  United States, 344, 345, 352–54, 384
Germany, 439–92
  academic freedom, 443, 465, 468
  admissions standards, 439–40
  background, 439
  benefits, 450
  class size, 474–75
  commitment to discipline, 484–86
  facilities, 464–66
  governance, 457, 465, 467, 492
  government, 440
  highest degree, 472–74
  income, 450
  job satisfaction, 450–52, 469, 470–71, 490
  job security, 448, 452
  outside work, 450, 451
  preparation for academia, 440, 469–74
  priorities for higher education, 483, 488
  publications, 464, 480–81, 482
  rank, 441–42
  research, 460, 476, 479, 480
  research funding, 479, 480
  service, 481–83
  structure, 439–41
  students, 485
  teaching, 472–76, 489
  work experience, 447
  workload, 452–60
governance, 16, 27–36
  Australia, 82–85
  Brazil, 263–67, 268–69
  Chile, 294, 298
  England, 392, 415, 421–22, 429, 430–31
  Germany, 457, 465, 467, 492
  Hong Kong, 193, 203, 212–16
  Israel, 640, 654–56
  Japan, 173–75, 176
  Korea, 132–34
  Mexico, 313, 335–37
  Netherlands, 497
  Russia, 569, 571, 597–601
  Sweden, 532, 543–44, 548–52, 563, 565
  United States, 348
government, 45–47
  Australia, 56, 72–73
  England, 392
  Germany, 440
  Hong Kong, 217, 219
  Israel, 618–19, 622
  Korea, 100, 101, 138, 139
  Mexico, 312, 316
  Netherlands, 496, 528
  Russia, 569–71, 610, 612–13
  Sweden, 530, 552

highest degree. *See also* Preparation for academia; Work experience
  Australia, 61–62, 71, 86
  Brazil, 238
  Chile, 286–87

  England, 410–13
  Germany, 472–74
  Hong Kong, 197
  Israel, 627
  Japan, 156–58
  Korea, 103
  Mexico, 323, 324
  Russia, 578–79
  Sweden, 534–37
  United States, 344
Hong Kong, 191–227
  academic freedom, 191, 194, 217, 218, 222
  admissions standards, 211–12, 216–17, 222
  age, 198
  background, 191–95
  benefits, 203–4
  decolonization, 194–95
  degree programs, 192
  disciplines, 205–6
  evaluation, 207–9
  facilities, 200
  funding, 193
  gender, 198
  governance, 193, 203, 212–16
  government, 217, 219
  highest degree, 197
  income, 199, 203
  internationalism, 223–25
  job mobility, 199, 204–6
  preparation for academia, 207–9, 210, 226
  priorities for higher education, 219–22
  professional activities, 224
  publications, 209, 224
  recruitment of faculty, 199
  research, 207–9
  research funding, 209–10
  service, 216
  society, 216–23
  status and role, 222
  structure, 191–92
  students, 211–12, 226–27
  teaching, 206–9
  teaching vs research, 207, 209
  tenure, 195–96
  work experience, 195–96
  working conditions, 200–203, 226
  workload, 200, 201

income, 10–11
  Australia, 59, 77–80
  Brazil, 244–46
  Chile, 287
  England, 392, 406–8
  Germany, 450
  Hong Kong, 199, 203
  Israel, 622, 630, 638–39, 659–60
  Japan, 158, 184, 185
  Korea, 109–10
  Mexico, 315, 320, 327, 330
  Netherlands, 502, 504
  Russia, 602–3
  Sweden, 559–61
  United States, 348
internationalism, 36–42
  Australia, 85–89
  Chile, 295–96, 305
  Hong Kong, 223–25
  Israel, 639, 656–57, 658
  Japan, 155, 175–78, 179–80
  Korea, 138–42
  Mexico, 338
  Netherlands, 523–26, 527, 528
  Russia, 608–10, 611
  Sweden, 554–56
  United States, 376–87, 388

Israel, 617–66
  academic freedom, 662
  admissions standards, 660
  age, 621, 629
  benefits, 638
  disciplines, 637–38
  gender, 619, 621, 625, 627, 632, 636
  governance, 640, 654–56
  government, 618–19, 622
  highest degree, 627
  income, 622, 630–32, 638–39, 659–60
  internationalism, 639, 656–57, 658
  job satisfaction, 641–43, 662–64
  job security, 641
  priorities for higher education, 661
  professional activities, 636–38
  publications, 633, 651–53
  research, 621, 632–36, 650–51
  research funding, 622, 650–51
  service, 653–54
  society, 657–62
  structure, 618–19, 620
  students, 619–21, 640, 646–50
  survey methods, 622–25
  teaching, 632–36, 646
  tenure, 625, 629–30
  work experience, 629
  working conditions, 632–33
  workload, 633–37

Japan, 149–90
  academic freedom, 161, 175
  age, 155–56
  background, 150–55
  benefits, 158, 184, 185
  commitment to discipline, 156, 160–61
  evaluation, 166–67, 186–87
  facilities, 170
  gender, 154–55
  governance, 173–75, 176
  highest degree, 156–58
  income, 158, 184, 185
  internationalism, 155, 175–78, 179–80
  job mobility, 154
  job satisfaction, 178, 181–86
  morale, 189
  outside work, 158
  professional activity, 159–60
  publications, 161–63, 164
  ranks, 156
  research, 153, 159–66, 188
  research funding, 163–66
  service, 173
  social origins, 156
  status and role of higher education, 181–84
  structure, 150–52
  students, 168–70
  teaching, 166–73
  university reform, 186
  work experience, 158
  workload, 159
job mobility, 11
  Brazil, 248
  Hong Kong, 199, 204–6
  Japan, 154
job satisfaction. *See also* Morale
  Australia, 67–68
  Chile, 287
  England, 419
  Germany, 450–52, 469, 470–71, 490
  Japan, 178, 181–86
  Korea, 114–17
  United States, 346–48
job security, 14

Brazil, 246–48
Germany, 448, 452
Israel, 641

Korea, 97–148
academic freedom, 138, 139
admissions standards, 100, 144
age, 103
background, 97–102
benefits, 110–12
class size, 120
commitment to discipline, 107
curriculum, 100
degree programs, 101–2
evaluation, 122–25
facilities, 113, 117, 129–31
gender, 103
governance, 132–34
government, 100, 101, 138, 139
highest degree, 103
income, 109–10
internationalism, 138–42
job satisfaction, 114–17
morale, 114
outside work, 132
preparation for academia, 117, 118
priorities for higher education, 143
professional organizations, 108
publications, 126–27
rank, 105–6
research, 126–31
research funding, 126–31
service, 131–32, 133
society, 142–43
status and role of higher education, 144–47
structure, 97–98
students, 114, 115, 122, 123, 125–26
teaching, 119–26
tenure, 106–7
work experience, 104–5
workload, 109

Mexico, 307–39
academic freedom, 337–38
age, 321
background, 308–15
evaluation, 315, 332
gender, 321
governance, 313, 335–37
government, 312, 316
highest degree, 323, 324
income, 315, 320, 327, 330
internationalism, 338
morale, 327–30
publications, 334–35
research, 333–35
research funding, 333–35
social mobility, 324
structure, 316
students, 311, 330
teaching, 330–32
tenure, 325–26
working conditions, 325–30
models of academic profession, 231–33
morale, 13–16. *See also* Job satisfaction
Australia, 65–66
Chile, 286
England, 435
Japan, 189
Korea, 114
Mexico, 327–30
Russia, 603–5, 614
Sweden, 564–65
United States, 346–50, 388

Netherlands, 493–528
admissions standards, 494

Netherlands *(Continued)*
- age, 503–5, 522, 523, 524
- background, 497–98
- benefits, 508
- facilities, 508–10
- gender, 499–501, 504, 520–23, 524, 528
- governance, 497
- government, 496, 528
- income, 502, 504
- internationalism, 523–26, 527, 528
- rank, 493, 498, 503
- research, 514–17, 518
- research funding, 516, 517
- service, 517, 519
- structure, 494–95
- students, 511, 513, 514
- teaching, 510–14
- tenure, 498–99, 501
- work experience, 502
- workload, 506, 507

outside work, 11–12. *See also* Service
- Australia, 66–67
- Brazil, 265
- Chile, 303
- Germany, 450, 451
- Israel, 654
- Japan, 158
- Korea, 132
- Russia, 589
- Sweden, 562

part-time faculty, 9

pensions. *See also* Benefits
- Australia, 81–82
- Brazil, 249
- Korea, 110

preparation for academia. *See also* Highest degree; Work experience
- Chile, 300–301
- England, 424–25
- Hong Kong, 207–9, 210, 226
- Korea, 117, 118
- Russia, 586, 589
- United States, 368–71

priorities for higher education, 43
- Australia, 71, 92–93
- Brazil, 273
- Chile, 294
- Germany, 483–88
- Hong Kong, 219–22
- Israel, 661
- Korea, 143
- Russia, 613

productivity. *See* Publications

professional activities, 17–18
- Brazil, 263–67
- Hong Kong, 224
- Israel, 636–38
- Japan, 159–60
- Korea, 108
- Russia, 596–97, 598

promotion decisions. *See* Governance; Tenure

publications, 22–23
- Australia, 73–80
- Chile, 288, 289–90
- England, 426, 427
- Germany, 464, 480–81, 482
- Hong Kong, 209, 224
- Israel, 633, 651–53
- Japan, 161–63, 164
- Korea, 126–27
- Mexico, 334–35
- Russia, 592–93
- United States, 344, 364–68, 388

questionnaire, 683–703. *See also* Survey method
- design of, 5–6

- rank
  - Australia, 59–60, 88–89
  - Germany, 441–42
  - Israel, 626
  - Japan, 156
  - Korea, 105–6
  - Netherlands, 493, 498, 503
  - Russia, 579–80
  - Sweden, 531
- research, 24. *See also* Teaching/research preference
  - Australia, 70–72
  - Brazil, 257–60
  - Chile, 289–92
  - England, 415, 426–28
  - Germany, 460, 476, 479, 480
  - Hong Kong, 207–9
  - Israel, 621, 632–33, 650–51
  - Japan, 153, 159–66
  - Korea, 126–31
  - Mexico, 330–32, 333–35
  - Netherlands, 514–17, 518
  - Russia, 586, 589–94
  - Sweden, 547, 551, 562–64
  - United States, 357–64, 388
- research cadre, 23–24
- research funding
  - Australia, 58, 78–80
  - Brazil, 260, 261
  - Chile, 291–92
  - Hong Kong, 209–10
  - Israel, 622, 650–51
  - Japan, 163–66
  - Korea, 128–31
  - Mexico, 333–35
  - Netherlands, 516, 517
  - Russia, 590, 593, 603
  - Sweden, 551–52
  - United States, 360–61, 387
- Russia, 567–614
  - academic freedom, 607–8, 609
  - admissions standards, 574–75, 576
  - age, 578
  - background, 568
  - benefits, 603
  - class size, 581–83
  - degree programs, 571–74
  - evaluation, 589, 590, 601
  - facilities, 587, 590–92
  - gender, 577–78
  - governance, 569, 571, 597–601
  - government, 569–71, 610, 612–13
  - highest degree, 578–579
  - income, 602–3
  - internationalism, 608–10, 611
  - job mobility, 606–7
  - morale, 603–5, 614
  - outside work, 589
  - preparation for academia, 586, 589
  - priorities for higher education, 613
  - publications, 592–93
  - rank, 579–80
  - research, 586, 589–94
  - research funding, 590, 593, 603
  - service, 595–96
  - society, 612
  - structure, 569–70, 571
  - students, 584, 586–87, 588
  - teaching, 580–89
  - tenure, 580, 601
  - working conditions, 603–5
  - workload, 589

- sabbaticals. *See also* Benefits
  - Australia, 81
  - Israel, 638
  - Korea, 110, 111
  - Sweden, 555
  - United States, 348
- salary. *See* Income

service, 22. *See also* Outside work
  Brazil, 260–63, 265
  Chile, 292–93
  England, 415
  Germany, 481–83
  Hong Kong, 216
  Israel, 653–54
  Japan, 173
  Korea, 131–32, 133
  Netherlands, 517, 519
  Russia, 595–96
  Sweden, 549–50
social mobility
  Brazil, 240–42, 243, 265
  Japan, 156
  Mexico, 324
society and higher education, 42–47
  Brazil, 272
  Chile, 294–95
  Hong Kong, 216–23
  Israel, 657–62
  Korea, 142–43
  Russia, 612
  Sweden, 556–59
  United States, 347
status and role of higher education
  Brazil, 247, 274
  Hong Kong, 222
  Japan, 181–84
  Korea, 144–47
structure
  Australia, 52, 53–54
  England, 391–92, 394–98
  Germany, 439–44
  Hong Kong, 191–92
  Israel, 618–19, 620
  Japan, 150–52
  Korea, 97–98
  Mexico, 316
  Netherlands, 494–95
  Russia, 569–70, 571
  Sweden, 533–34
  United States, 344–45
students, 13–14, 26
  Australia, 54–55, 89–91, 92
  Brazil, 252, 254, 257, 258
  Chile, 289
  England, 429–33
  Germany, 472–76, 489
  Hong Kong, 211–12, 226–27
  Israel, 619–21, 640, 646–50
  Japan, 168–70
  Korea, 114, 115, 122, 123, 125–26
  Mexico, 311, 330
  Netherlands, 511, 513, 514
  Russia, 584, 586–87, 588
  Sweden, 531–32, 534, 547–48, 558, 562–64
  United States, 351, 355
survey method, 669–78. *See also* Questionnaire
  Australia, 52, 62–65
  Brazil, 235–36
  England, 437
  Germany, 445–47
  Hong Kong, 195
  Israel, 622–25
  Japan, 150
  Netherlands, 500–501
  Russia, 567
  Sweden, 537–38
Sweden, 529–65
  academic freedom, 550–52
  admissions standards, 531–32
  age, 540
  background, 529–33
  class size, 544–45
  evaluation, 552–54
  gender, 538–40

- governance, 532, 543–44, 548–52, 563, 565
- government, 530, 552
- highest degree, 534–37
- income, 559–61
- internationalism, 554–56
- morale, 564–65
- outside work, 562
- rank, 531
- research, 547, 551, 562–64
- research funding, 551–52
- service, 549–50
- society, 556–59
- structure, 533–34
- students, 531–32, 534, 547–48, 558, 562–64
- teaching, 544–48
- working conditions, 559–64
- workload, 540–48, 562–64

teaching, 19–22. *See also* Teaching/research preference
- Australia, 72
- Brazil, 250–57
- Chile, 288–89
- England, 413–419, 426–27, 436
- Germany, 472–76, 489
- Hong Kong, 206–9
- Israel, 646
- Japan, 166–73
- Korea, 119–26
- Mexico, 330–32
- Netherlands, 510–14
- Russia, 580–89
- Sweden, 544–58
- United States, 350–57

teaching load. *See also* Workload
- Brazil, 249, 254
- Chile, 187
- England, 413–15
- Germany, 444, 453–55, 457, 464, 490
- Japan, 159
- Korea, 109, 119–20
- Mexico, 330
- Netherlands, 510–11
- Russia, 580–81
- Sweden, 541
- United States, 351–54, 363

teaching methods
- Germany, 476, 478, 489
- Israel, 647
- Japan, 168
- Korea, 121–22
- Russia, 582
- Sweden, 545
- United States, 355–57

teaching/research preferences, 15–16, 20–21, 25
- Brazil, 253
- Chile, 299
- England, 413–19
- Germany, 460–64
- Hong Kong, 207, 209
- Israel, 617–18, 632–36, 643–46, 662
- Japan, 160
- Korea, 122, 146
- Mexico, 332–33
- Russia, 586, 589, 610
- United States, 360

tenure, 8
- Australia, 60–61, 63
- Brazil, 238
- England, 392
- Hong Kong, 195–96
- Israel, 625, 629–30
- Korea, 106–7
- Mexico, 325–26
- Netherlands, 498–99, 501

tenure (*Continued*)
  - Russia, 580, 601
  - United States, 344, 345–46

travel grants. *See also* Internationalism
  - Australia, 80–81
  - Israel, 638
  - Korea, 110, 111
  - United States, 348

United States, 343–88
  - benefits, 348, 349
  - evaluation, 358
  - facilities, 348, 349
  - gender, 344, 345, 352–54, 384
  - governance, 348
  - highest degree, 344
  - income, 348
  - internationalism, 376–87, 388
  - job satisfaction, 346–48
  - job security, 348, 349, 372
  - morale, 346–50, 388
  - preparation for academia, 368–71
  - publications, 344, 364–68, 388
  - research, 357–64, 388
  - research funding, 360–61, 387
  - society, 347
  - structure, 344–45
  - students, 351–55
  - teaching, 350–57
  - tenure, 344, 345–46
  - work experience, 344
  - workload, 346, 360, 362, 363

work experience. *See also* Highest degree; Preparation for academia
  - England, 413
  - Germany, 447
  - Hong Kong, 195–96
  - Israel, 629
  - Japan, 158
  - Korea, 104–5
  - Netherlands, 502

working conditions, 13–17
  - Brazil, 248–50, 251
  - Hong Kong, 200–203, 226
  - Israel, 632–33
  - Mexico, 325–30
  - Russia, 603–5
  - Sweden, 559–64

workload. *See also* Teaching load
  - Chile, 287–88
  - England, 413–19
  - Germany, 452–60
  - Hong Kong, 200, 201
  - Israel, 633–37
  - Japan, 159
  - Korea, 109
  - Netherlands, 506, 507
  - Russia, 589
  - Sweden, 540–48, 562–64
  - United States, 346–60, 362, 363